

Consumers Union

R E P O R T S

VOL. 6, NO. 10

OCTOBER 1941



GROWING PLANTS
WITHOUT SOIL

VACUUMS—TANK
& HANDLE TYPES

RADIO REPAIRS

MEN'S HATS

DEPILATORIES

DIAPERS: RATINGS
OF THREE TYPES

HOW TO PROTECT
YOUR SAVINGS

Dear CU:

FOR A NUMBER OF MONTHS WE HAVE BEEN FILLING this space with words addressed to the members of Consumers Union. As the working staff of the organization we have been trying to show how we approach and handle our responsibilities to the members who are the organization. Particularly, we have been taking up criticisms or misunderstandings about CU, one by one, and trying to answer or clarify them.

By and large this formula seems to be a good one. A number of members have told us of showing these pages to cynical friends, with the result not only of stopping a lot of loose talk concerning CU but of making new members out of former foes. And in the last membership questionnaire 94% of those replying voted that the pages were worth continuing (including 15% who thought they were on the boring side and, even so, useful).

The other day, though, one member observed to us that he thought it was about time for a change of pace. "My friends," he said, "you have answered 87 separate and distinct criticisms and cleared up at least 69 misunderstandings, and that is fine. But doesn't anybody ever say anything nice about CU? Doesn't anybody ever drop a pleasant word that you don't have to answer or clear up?"

They do. It hadn't occurred to us to bring up the point here, but our friend is probably right. We have been so preoccupied with the occasional con that we have overlooked the steady pro.

So this month we'll let our members do the talking. Here's what a few of them have to say:

"I am a charter member, and I can't think of any investment from which I've got more benefit. . . . You folks are really doing a swell job."—MILFORD D. COWAN, Fort Peck, Montana.

"The fact that you have been able to advance as you have in the face of an advertisers' boycott shows how consumers have appreciated your efforts."—MARY HENKE, Monticello, Indiana.

"I have been an enthusiastic supporter of CU for some time and I thoroughly approve of its policies.

I think your medical section is particularly fine."—EUGENE SOMKIN, M.D., New York, N. Y.

"I have been very much pleased with Consumers Union and have really used it. Let me congratulate you on the whole enterprise and wish you all success. Enclosed is a check for a two-year renewal."—JOHN DOLLARD, *Institute of Human Relations*, Yale University.

"I have found your reports to be most helpful, and see in your work a practical application of Christian principles."—REV. GEORGE M. THOMAS, *First Congregational Church*, Jamestown, N. D.

"I conclude that no purchaser can ignore these reports without seriously prejudicing his (or her) interests."—DAVID TURET, New York, N. Y.

"Your automobile reports have been most enlightening and give valuable information almost impossible for consumers to get in such an understandable and inexpensive form."—REV. WALTER H. STOWE, *Christ Church*, New Brunswick, N. J.

"We have learned more from CU in the past year than we have learned from the sad school of experience in our lifetime."—MRS. HAROLD SPRINGER, Cloverdale, Michigan.

"Your *Buying Guide* is worth its weight in gold."—RICHARD ROLFF, JR., Rutherford, N. J.

"The last member I obtained for Consumers Union was the city of Buffalo. On my recommendation, the Department of Purchase has subscribed and tells me that it has already found the service very useful. I feel gratified that Consumers Union is thus able to extend the influence of its unbiased research in so definite a way."—DAVID DIAMOND, *Corporation Counsel*, Buffalo, N. Y.

"I am still enthusiastic about CU after three years as a member. It is my most popular and useful reading and reference source."—STANLEY R. KEZELE, Milwaukee, Wis.

"It's almost a crime that more people don't know about CU."—ROBERT W. MANGES, Cairnbrook, Pa.

"May I commend you on your straightforwardness in making tests and explaining your findings. I can vouch that we are with you 100%. Several members, including myself, buy only what has been tested by CU, whenever that is at all possible."—PHILIP A. MEYERS, Springfield, Mass.

If You Want Ratings of Canned Foods—Write Your Congressman

CU MEMBERS may have noticed that recent issues of the *Reports* have carried very few articles on canned foods. They may have been surprised that in this period of rising prices and quality deterioration in practically every line, one of the basic necessities—food—has apparently been neglected. The simple answer is that we haven't been able to get the food graded for us by the U. S. Dep't of Agriculture's grading service. And why we haven't leads to an interesting story.

We started out by being angry because shipments of canned goods which we sent to the grading service waited months to be graded, instead of a few days, as formerly. We demanded faster service. But the graders said they could do nothing to help us. Rush jobs on government orders of canned goods were coming in, and even with the graders working day and night there was a tremendous backlog of unfinished work.

The solution looked pretty simple: Why not hire more graders? It was the answer to that which leads to the story.

The Processed Fruit and Vegetable Inspection Service of the Agricultural Marketing Service is the agency that does canned food grading. It has the full responsibility of inspecting commercial canned goods and grade labeling them. As such, it is the mainstay of the entire grade labeling program.

To do this job, the service has a budget of \$40,000 a year. Out of this it maintains 17 grading stations throughout the country, and buys all necessary equipment. Which, even in normal times, leaves nothing over for expansion of the program.

But these are not normal times. Government agencies are buying great quantities of food for defense purposes. And as a discerning consumer, the government wants to know the quality of the food it pays for. Naturally, it turns to the AMS for help.

To the government, as to private groups, this information is available at a price. But a distinction exists. When a private manufacturer or a consumer group pays for grading service, the money goes not to the AMS, which does the work, but back to the Treasury Dep't to be reappropriated for general use. Government agencies pay the AMS directly for services rendered.

In normal times the AMS has a hard enough job to squeeze the necessary amount of work into its tiny budget: consumer demand for grade labeling makes itself felt. But in these times of emergency, the situation has become really critical.

Although government defense orders bring enough money to the AMS to pay the salaries of the extra men engaged, there is no provision for the thousands of extra dollars needed to run the department under the increased pressure. Added equipment, training of men, clerical help, &c. must all be paid for out of the original \$40,000 appropriation. The upshot is that the AMS just can't do the job of grading canned foods for civilian uses.

We are heartily in favor of having defense orders graded. But just as grade labeling is essential to the government, so is it to consumers. And now—after years of campaigning for a grade labeling program have begun to show results—is no time to abandon the program. Indications are that a number of distributors would be willing to grade

IN THIS ISSUE



The purposes of Consumers Union, as stated in its charter, are "to obtain and provide for consumers information and counsel on consumer goods and services . . . to give information and assistance on all matters relating to the expenditure of earnings and the family income . . . to initiate and to cooperate with individual and group efforts seeking to create and maintain decent living standards for consumers."

TECHNICAL SECTION

Vacuum Cleaners: Test Results on 14 Brands	257
Men's Hats: A Report on 11 Brands	261
Depilatories: Creams, Powders, Liquids, Waxes, Abrasives	263
Soilless Culture: How to Grow Plants without Soil	265
Diapers: Flannel, Birdseye, Gauze—Tests on 33 Brands	268
Radio Repairs: How to Get Your Money's Worth	270

MEDICAL SECTION

Infectious Diseases: New Weapons against Diphtheria, Scarlet Fever, Whooping Cough, Smallpox, Measles and Mumps	272
---	-----

NEWS AND INFORMATION

What to Do with Your Savings	275
Labor Notes: Men's Hats	277

DEPARTMENTS AND FEATURES

On the Horizon	256
The Docket: Government Actions	278

Cover Picture by Black Star

ARTHUR KALLET
Director

DEXTER MASTERS
Publications Director

BOARD OF DIRECTORS: Harold Aaron, Hartley W. Cross, Jerome Davis, Ned H. Dearborn, Osmond K. Fraenkel, A. J. Isserman (Counsel), Arthur Kallet, Paul J. Kern, Raymond E. Kirk, William M. Malisoff (Special Technical Consultant), George Marshall, Dexter Masters (Secretary), Walter Rautenstrauch, Bernard J. Reis (Treasurer), Adelaide Schulkind, Sidney Wang (Staff Representative), Colston E. Warne (President), Goodwin Watson, Gerald Wendt. **VICE-PRESIDENT:** James Gilman.

CONSUMERS UNION OF UNITED STATES, INC. is a non-profit organization chartered under the Membership Corporation laws of New York and deriving its income from membership fees. It is sponsored by more than 70 educators, social workers and scientists (names on request). It has no connection of any kind with any commercial interest and accepts no advertising.

MEMBERSHIP FEES: \$3.50 a year with subscription to *Reports* and *Buying Guide*; \$4 for *Reports* and *Buying Guide* plus *Bread & Butter* (weekly news report); Foreign and Canadian memberships 50c additional (\$1.50 with *Bread & Butter*). Reduced rates for groups of 15 or more. Library rates \$3 for *Reports* alone.

CORRESPONDENCE should be addressed to Consumers Union, 17 Union Square, New York City. CU regrets that time does not permit answers to inquiries for special information.

OCTOBER, 1941

VOL. 6, NO. 10

Consumers Union Reports is published monthly by Consumers Union of United States, Inc., at North Broadway, Albany, N. Y. Entered as second-class matter June 1938 at the postoffice, Albany, N. Y., under the act of March 3, 1879. Copyright 1941 by Consumers Union of United States, Inc.



Consumers Union Reports is Prepared and Edited Under Union Conditions by Contract with the Book and Magazine Guild.

label their goods now, if they could induce the government to do the grading. And AMS is forced to turn them away because of lack of funds.

The solution seems absurdly simple. The first and simplest method would be to have private grading treated like government grading: let the AMS receive directly the money which distributors pay for the work done. On that basis the division could pay its way.

The second solution amounts to the same thing, put differently. Congress holds the purse strings. Instead of loosening those strings, there is talk of tightening them by cutting AMS's appropriations (as part of a cut in the appropriations of all non-defense agencies). This would be a major setback to a program which consumer groups have worked hard to realize. Now is the time for the strings to be loosened.

Consumers can help. The budget is coming up for consideration again soon. Write your Congressman. Tell him that the achievements of the grade labeling program must be retained. And urge that he vote for an increased appropriation to be devoted to the AMS for that purpose.

"You're Tops, Dream Girl. Been Eating Yeast Again?"

WE COULD just pass over the *Fleischmann's Yeast* ad with the above headline as one of the worst of the year, "tops" for unbelievable conversation and general dizziness. But we think it has a moral.

Over three years ago the Federal Trade Commission ordered the makers of *Fleischmann's Yeast* "to cease representing [among other things] that the product will cure or prevent constipation, bad breath, boils, acne, pimples or other manifestations of irregular digestion, and that it will 'clear' skin irritants out of the blood. . . ." That order came through after years of advertising that *Fleischmann's Yeast* would do all those things.

So without a blush a new and improved advertising campaign was dreamed up. It was composed of a handful of vitamins and some nice general claims that would get past the FTC. *Fleischmann's Yeast* may not improve your digestion, your skin, or your blood, but it will make you a "dream girl" just the same.

Well, that's one case. Another is *Knox Gelatin*, which smeared the advertising pages of magazines and newspapers for a couple of years with extravagant claims that it would give you pep and energy, keep you from getting hurt if you were an athlete, increase your stamina, &c.

Then, last May, the FTC crashed through with an order "to cease and desist from representing, directly or by implication: (1) That scientific laboratory tests have established as a matter of scientific fact that *Knox Gelatin* increases vim and vitality, increases endurance, builds resistance to fatigue, cuts down and lessens fatigue, increases stamina and 'staying power,' curbs tiredness, restores vigor or stores energy," &c., &c.

This Fall, nevertheless, has already seen the opening of a vast new *Knox* campaign. Certain tests are featured which the company claims to have given to "large numbers of men and women, in 26 different tiring occupations," with the result that "two out of three who drank *Knox*

regularly for 28 days said they felt better at the end of the working day."

Maybe we're dense, but this looks very much like what *Knox* used to claim before the FTC order. And if it is, the FTC ought to step in and put a stop to it—all over again.

The fact is that even the strongest FTC order leaves too many loopholes for an unscrupulous advertiser. If you are prevented from saying "Dr. Google's Pills will cure constipation," you can try rephrasing it to "Troubled with constipation? Take Dr. Google's Pills." If the FTC decides that you are just saying the same thing in different words, it may eventually get around to citing you for contempt—or, what with one thing or another, it may not.

Also, you can try saying that Dr. Google's Pills cure dandruff, which means that the FTC has to start all over again on the new claim. Or (like the makers of *Fleischmann's Yeast*) you can just claim that Dr. Google's Pills will make you a "dream girl," and rely on pictures and little innuendos of copy to get the old point across.

The moral? Only this: the FTC can't protect you from an unscrupulous advertiser who has found an appeal, however farfetched or shady, that will sandbag, terrify, cajole or lure you into buying his particular brand. The FTC can stop some direct misstatements of fact. But frequently an advertising campaign will go on for years before the FTC takes action, and even then the only result may be that the company streamlines its ads by filling them with those glittering words which seem to mean what they don't and vice versa.

Don't bother writing your Congressman on this one—yet. It would probably be a waste of time. Instead, go out and get some new CU members; get a consumer group working in your neighborhood. The FTC needs some teeth with which to bite, and it's going to get them only as and if a strong consumer movement forces the issue.

On the Horizon



The Blue Swan Mills has introduced the Panty-of-the-Month, and is forming Panty-of-the-Month Clubs, in an effort to snare the estimated 50% of the women who do without. December's P.o.t.M. will be dedicated to the U.S. Army; if you happen to see an olive drab pair with the word "Yoo-Hoo" on the left thigh, that's them.

Among the happiest of the civilian-goods industries probably are the glass manufacturers; their basic materials (sand, lime, limestone, and soda ash) are plentiful, and the only priorities pinch is getting enough new machinery to meet growing demands. The use of glass cooking utensils is expanding rapidly; all *Del Monte* fruits and vegetables, and some *Bliss* and *Maxwell House* coffee, are now packed in glass; and a growing number of big canners are experimenting with glass packaging.

After seriously discussing shorter skirts as a means of saving materials for national defense, the dress trade is generally opposed. They say it's propaganda for the underwear manufacturers.

TECHNICAL SECTION

OF CONSUMERS UNION REPORTS

Ratings of products represent the best judgment of staff technicians or of consultants—more than 200 specialists selected for competence and freedom from commercial bias—in university, governmental and private laboratories. Samples for test are in practically all cases obtained on the open market by CU's shoppers. Ratings are based on laboratory tests, carefully controlled use tests, the opinion of qualified authorities, the experience of a large number of persons, or on a combination of these factors. Most ratings of necessity reflect opinion as well as scientific data. For even with rigorous tests, interpretation of findings is often a matter on which expert opinion differs. It is Consumers Union's pledge that such opinions as enter into its evaluations shall be as competent, honest, and free from bias as it is possible to make them.

• "Best Buys" should give greater return per dollar although some products rated "Also Acceptable" may be of higher quality. Except where otherwise noted, a product rated "Not Acceptable" is judged to be of inferior quality or is considered to be potentially harmful.



Vacuum Cleaners

The first rule is not to let the salesman sweep you off your feet. And then make sure you really need a new cleaner before you buy. If you do, these results of extensive new tests can help to guide your purchasing

THE AVERAGE American housewife, whose problems as a consumer are seldom simple, has an unusually tough job when it comes to buying a vacuum cleaner. Besides being confronted with a formidable array of factors to consider—cost, cleaning ability, convenience, suitability for her individual needs—she invariably has to submit to further bewilderment by manufacturers and salesmen.

The salesmen probably do most to confuse the issue. The ideal sales approach (from the standpoint of the housewife) would be something like this:

"Madam, although there is hardly any totally useless vacuum cleaner on the market today, I would appreciate your buying my brand as I have a sales quota to fill. My company is offering some extra gadgets, but don't let that influence your choice, since they're most likely to lie idle in a closet unless you let Junior use them for toys.

"I am glad to see that a rival manufacturer has left you a different type of cleaner. I will leave my cleaner here for a week and let you decide which is more convenient for you to use. Some women prefer our type; some the other type.

"I will call again next week to hear your decision."

But this approach wouldn't guarantee salesmen a large percentage of sales.

So, instead, something more like the following is apt to occur:

Salesman enters: "I don't want to insult you, madam, by asking this question, but do you really think your rug is clean?"

Replies the housewife: "Well, I've had a *Blank De Luxe* cleaner for the last five years, and I clean the rug with it every week for at least 20 minutes. I never use a microscope, but the rug does look clean."

Salesman: "Then prepare for the surprise of your life." (And he cleans the rug with his *Special X* model after first going over the rug with the *Blank De Luxe*. The task finished, he empties a pile of dirt from his cleaner in the middle of the carpet.) "There," he says triumphantly, "is how much dirt your old cleaner has left in your rug."

The housewife should seize this opportunity to demonstrate the efficiency of her present cleaner by removing with it the dirt left in the rug by the salesman's. (No cleaner will remove all the dirt from a carpet in one "going-over"; each successive cleaning will disclose additional dirt.) But the housewife is more apt to let herself sink into an impressionable frame of mind for the rest of the salesman's high pressure talk.

"This cleaner is *indestructible*!" he shouts, as he drops steel balls and coins

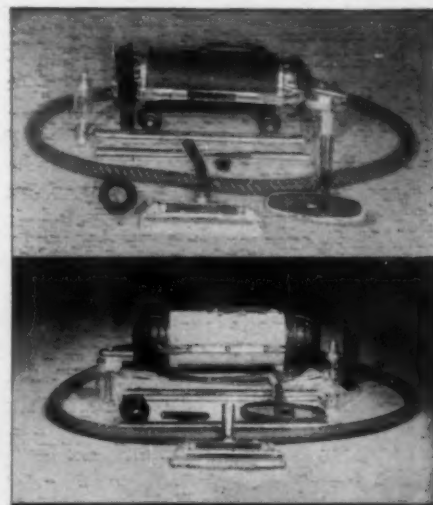
of various denominations on the floor and allows them to be sucked into the maw of the cleaner. Then, in rapid succession he cleans the ceiling with a special brush, cleans the brush itself by suction and finally, to prove the germicidal action of the cleaner, runs the brush through his hair.

This is the moment when the housewife should *not* sign on the dotted line. Instead, she should arrange to have the cleaner left in her home for trial under normal use conditions. If possible, she should do the same with other brands of cleaners, or at least other types. That is, she should try out both a handle type and a tank type cleaner. Only on the basis of comparative checking in her own home can a housewife discover which type of cleaner fills her requirements better.

But before you consider buying a new vacuum cleaner, it's wise to look over your present cleaner, with an eye to having it overhauled. If the motor is in mechanically sound condition, you may be able to save a considerable amount over the price of a new cleaner, by replacing a worn out brush cord, belt, motor brush, or dust bag. In all events, don't discard your old cleaner until you've satisfied yourself that it can't be made to last a few more years through a thorough overhauling.

If you find your old cleaner can't make the grade, and you want another, but without too much expense, consider buying a rebuilt vacuum cleaner. Cleaners rebuilt by the manufacturer or by a reliable company are capable of giving years of good service at a small initial outlay.

If, however, you finally decide on a



THEY LOOK ALIKE

... and they cost the same. But CU's tests showed that the Magic-Aire 200 (top) far surpassed the GE Air-Flo in its ability to remove dirt.



ANY ODD JOBS TO BE DONE?

But the job some attachments do best of all is to gather dust in the closet

new model, don't be too enthusiastic about paying the first price that a salesman mentions. There may be a wide spread between the list price of a cleaner and the price at which the salesman may be willing to sell it. By "holding out" you will probably get a lower price.

HANDLE TYPE AND TANK TYPE

IN BUYING a vacuum cleaner a housewife has to decide between two basic types: the vertical handle type or the floor tank type. The important considerations in making this choice are cleaning ability and speed and the type of cleaning which your household set-up demands from a vacuum cleaner.

For instance, if you live in a one-family house or a duplex apartment, you may find the relatively clumsy handle type a nuisance to carry up and down stairs. On the other hand, if you feel that you won't have much use for the various attachments that come with the tank type, you'll probably find the handle type simpler to use in cleaning.

The only way the housewife can decide which type suits her best is to try both types in her home—but without the salesman's presence and patter.

If you choose the handle type, attachments will cost extra—as much as \$16.50. So make sure that you'll find use for them, before you buy them, and that they simply won't be left to accumulate dust in a closet. However, if you really yearn for them, you can get gadgets which allegedly do everything from grooming pets and waxing floors to spraying plants.

Tank type cleaners come with a variety of attachments included in the price of the cleaner.

Because it is somewhat more difficult to connect attachments to the handle type of cleaner, some manufacturers are putting out miniature editions of the regular full-sized cleaner, to be used in place of a multitude of attachments. You may find a separate small cleaner more convenient than a set of attachments, or you may not.

Besides convenience, the two types of cleaners differ basically in their methods of cleaning. The handle type usually has rotating brushes which automatically agitate rug fibers and prepare the way for the suction action. The Hoover, in addition, has metal beaters.

In the tank type there is no automatic agitation; this is compensated for to a great extent by stronger suction, and to some degree by the more vigorous "back-and-forth" cleaning motion made possible by the lighter weight of the handle.

Because something besides suction is needed for effective lint removal, some of the tank type cleaners include sta-

tionary brushes in the nozzle (the *Magic-Aire*, and the *GE Air-Flo*). Other cleaners provide for lint removal with a "nozzle within a nozzle" (*Hamilton Beach*) or a special comblike mechanism (*Electrolux 20*) or by a fine nozzle with a comb which comes in contact with the rug when the regular nozzle is inverted (*Electrolux 30*).

The use of these devices is a tacit admission on the part of tank type cleaner manufacturers that the handle type of cleaner is fundamentally a more effective lint remover. However, the addition of these improvements to the tank type cleaners makes some of them superior to certain handle type cleaners in lint removal ability.

It's been suggested that the agitation (rotating brushes and metal beaters) of the handle type cleaner has a wearing effect on rugs. To determine this theory satisfactorily, tests would have to be made on various types and makes of carpets in order to take into account differences between rug materials and manufacturing processes. At present, some rug manufacturers are of the opinion that the greatest cause of wear on rugs is dirt which becomes imbedded in them. In line with this reasoning, thorough cleaning of carpets would lessen wear on them. According to the aforementioned manufacturers, the amount of rug fiber removed by the fastest cleaner is a negligible factor in the total life of the rug.

However, CU advises that for cleaning an expensive Oriental rug, you use a tank type cleaner which has no brush, since this will cause the least wear. (Don't use a cleaner with an aluminum nozzle on any light rug, since the nozzle may shed particles of aluminum oxide, discoloring the rug.)

No appreciable difference in wear will be produced by the two types of cleaners when used on domestic machine-made rugs according to CU's tests. You should always be careful, however, in cleaning any rug with a handle type cleaner, not to allow it to stand in one spot with the motor running. This has a very wearing effect on a rug.

CARE AND MAINTENANCE

HOW MANY years of efficient service you get from your vacuum cleaner depends on the care it is given. One simple but important operation is to empty the dust bag frequently, preferably after each use. Dust clogs up the pores in the bag so that air passes out through them less readily. This builds up a back pressure which reduces the cleaner suction. Bags should be thoroughly shaken when they are emptied to dislodge accumulated dust. It's also



GOOD PERFORMANCE

... and low price make this Co-op De Luxe a "Best Buy"

a good idea to turn the bag wrong side out and brush it every now and then.

If you have a tank type cleaner, watch the filter. When it becomes clogged up, replace it, for clogged filters will build up back pressure just like dirty bags.

Since the last tests on vacuum cleaners were made by CU (December 1936 and March 1938), most manufacturers have adopted ball bearings packed in grease or self-lubricating bearings, thus doing away with the plain bearings which required frequent oiling. Nevertheless, you should have the bearings as well as the motor brushes inspected every year or two; it's good insurance against expensive damage resulting from defective motor brushes or burnt-out bearings.

To produce maximum cleaning action without too much wear on rugs, rotating brushes in handle type cleaners should extend about one-sixteenth of an inch beyond the nozzle (you can test the distance by holding a card across the nozzle). As the brush wears down, it should be readjusted; failure to do this impairs the cleaning power of the vacuum since its suction power alone is too weak to do a thorough job. And when a brush has worn down to the point where it cannot be made to extend beyond the nozzle, it should be replaced.

Some cleaners have a nap adjustment (a device for regulating the height of the nozzle above the rug surface to be cleaned); this should be adjusted according to manufacturer's directions.

Pay attention to the condition of your cleaner's extension cord. Worn cords are serious sources of shock and fire hazards and should be promptly replaced. Durability of cords is considerably increased when they are reinforced at the points where they are most likely to be sharply bent, either by a thickening of the rubber covering or by a coiled-wire reinforcement. To make the cord last longer, avoid getting knots and kinks in it, and don't wind it too tightly around the handle or tank.

If your vacuum cleaner has easily accessible motor brushes and bearings, you can make minor adjustments yourself. In most of the present models, (both tank and handle type) motors are so effectively concealed that the cleaner may have to be sent to a service station for even minor adjustments.

HOW CU TESTED

THERE have been many arguments over the kind of test to be used for comparing the cleaning effectiveness of various brands of vacuum cleaners. In the past, Consumers Union conducted laboratory tests in which cleaners were run over rugs treated with artificially imbedded dirt. But tests conducted under "field" conditions—on rugs dirtied in actual use in homes and theaters—frequently produced results at variance with those obtained from the laboratory tests. More disconcerting, the field tests, on occasion, failed to agree with each other. And in any event, the "field" lacked the best feature of the laboratory; namely, the possibility of controlling conditions so that possible sources of variation in results were eliminated.

So baffling was the problem that the revised Federal Specification for Elec-

tric Portable Vacuum Cleaners, which appeared in November 1940, omitted dirt removal tests completely. Upon inquiry, authorities declared that they considered the results of tests made with artificial dirt unreliable. Consequently, it appeared that the usual laboratory procedure in vacuum cleaner tests would have to be modified.

After many months of experimental work, CU technicians devised a test method which combined the best features of both laboratory and field tests. CU's solution: cleaners were tested under carefully controlled conditions, but on rugs which had been dirtied naturally—by people walking over them. Put to actual use, the test method gave consistent and reasonably reproducible results.

In brief, this is how the tests were conducted:

A cleaner, picked at random from the group to be tested, became the "standard" to which all the other cleaners were compared. Then, in turn, each of the remaining cleaners in the group was paired with the standard cleaner; the two were run over the same piece of rug (naturally dirtied) one after the other. During each pair of "runnings," CU technicians measured by how much the cleaner under test was faster or slower in cleaning speed than the standard cleaner. Thus after each cleaner had been compared with the standard cleaner in this manner, it was possible to determine the *relative* cleaning speed and effectiveness of all cleaners in the group.

A complete description of the test methods used by CU will appear in a later issue of the *Reports*.

RATINGS FOLLOW ON PAGE 260

Substitutions & Shortages

CONSUMERS may expect substitutions in materials used in the manufacture of vacuum cleaners, owing to defense priorities. Some substitutions have already been made; others will be adopted as available supplies of regular materials are depleted.

In the present tests on vacuum cleaners CU found the following substitutions: a tank made of cardboard instead of sheet metal; plastic instead of aluminum domes; radiator nozzles of pressed paper; wooden instead of aluminum brush bodies.

As long as strength and durability are not sacrificed, such substitutions will not necessarily lower the quality of vacuum cleaners. In fact, in one case, there seems to be a gain. A plastic nozzle may be preferable to an aluminum nozzle, since the latter is capable of discoloring light carpets.

Prospective purchasers of cleaners should be on the lookout for substitutions in bearings. Priorities on ball bearings may lead manufacturers to use old-type bearings which require frequent oiling. If you're not sure about the bearings on a cleaner you're considering, ask your dealer for a written guarantee that the cleaner has either self-lubricating or ball bearings.

There is some possibility that handle type vacuum cleaners may be taken off the market in the near future. At a meeting of the Vacuum Cleaners Manufacturing Ass'n early in the summer, President Clarence G. Frantz declared, "Aluminum shortages already indicate that the floor type of cleaner [handle type] may be eliminated altogether, within a few months, in favor of the tank type which uses steel." At the present time, however, stores are offering their usual line of handle type cleaners.

RATINGS

HOW THE cleaners performed in this dirt removal test was the principal factor considered in rating them; but CU also took into consideration such matters as ability to maintain performance, convenience and economy of operation and maintenance, provision for adjustment to rugs of different pile heights, and presence or absence of shock hazard.

In the ratings vacuum cleaners which used up to 300 watts of power are referred to as those with "low power consumption"; cleaners which used more than 450 watts were considered to have "high power consumption." Where this factor is not mentioned in the rating of a cleaner, you may assume that its power consumption was average. With electricity at 5¢ per kilowatt hour, the operating costs of the cleaners tested would range from 9/10 of a cent to 2 9/10 cents per hour.

When a cleaner had two speeds, the power consumption for both speeds is mentioned. Though some credit was given for the two-speed feature, CU technicians do not consider it very important, since its only possible value is to reduce the already low suction of handle type cleaners for more gentle action in cleaning fabrics.

Cleaners which weighed up to 13½ pounds were considered "light"; those weighing more than 16 pounds, "heavy." Where no mention of weight is made, the cleaner falls in the medium class.

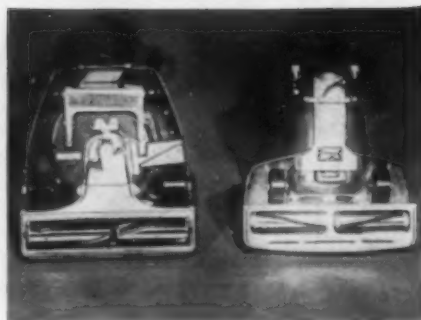
If, in the judgment of CU technicians, a cleaner was accompanied by attachments sufficient to do all the necessary cleaning jobs, the fact was indicated in the ratings by the phrase "complete set of attachments."

"Inaccessible motor brushes" apply to cleaners in which the motor brushes were located inside the motor housing, so that the cleaner had to be taken apart before they could be reached.

Since all the handle type cleaners tested had rotating brushes, switches on the handle, and headlights (except the rebuilt Hoover 700), these factors are not mentioned in the ratings.

In the ratings below, the "Best Buys" are computed on the basis of list prices. If you can get some brand included in the "Acceptable" list at a much lower price—from a discount house, small store, or door-to-door salesman—then it will be a "Best Buy" for you.

Not all the cleaners under CU's inspection had been tested at the time this issue went to press. These preliminary ratings are given for the benefit of those consumers who are anxious to purchase immediately. Complete ratings will appear in the November Reports.



A RUG'S EYE VIEW

... of two types of vacuum cleaners. The Hoover 60 (left) has both rotating brushes and metal beaters. The Montgomery Ward has only the brushes

Best Buys

The following vacuum cleaners of the "Acceptable" list are judged to offer the best value for the money, in the order given. See listing below for full details.

Electrolux 12-A Rebuilt. \$29.95. Tank type.

Co-op De Luxe. \$29.95. Handle type.

Ward's Cat. No.—841. \$34.95 plus transportation. Handle type.

Electrolux 20. \$49.50. Tank type.

Hoover 700 Factory Rebuilt. \$35.95, list. Handle type.

Acceptable

(In order of quality without regard to price)

Hoover 60 (Hoover Co., North Canton, Ohio). \$82, list. Sold mostly by house-to-house salesmen. Handle type. Highest in dirt removing ability of all cleaners tested. Excellent construction. Inaccessible motor brushes. Claim of automatic nap adjustment, CU believes, is not completely justified. Rotating brush only partially adjustable, but this is compensated for to a great extent by steel beater bars which won't wear out. Position of handle easily adjusted by convenient handle button. Belt easy to replace. Headlight inconvenient to replace. Maneuverability very good. Very noisy. Complete set of attachments for \$16.50, list. Attachments easily connected (in comparison with other handle type cleaners). Heavy. In general, an excellent machine, but very much overpriced.

Electrolux 30 (Electrolux Corp., NYC). \$69.75, list. Sold only by house-to-house salesmen. Tank type. Highest in dirt removing ability of all tank type cleaners tested. Inaccessible motor brushes. Special provision for removing lint. Bag more easily removed than on other tank type cleaners tested. Maneuverability very good because of swivel handle and nozzle. Foot-operated switch. Quietest of all cleaners tested. Complete set of attachments included. Attachments very easily connected. High power consumption. An excellent machine, but very much overpriced.

Hoover 305 (Hoover Co.). \$52.50, list. Sold mostly by house-to-house salesmen. Handle type. Second in dirt removing ability of all cleaners tested, but removed somewhat more nap than other cleaners. Inaccessible motor brushes. Claim of automatic nap adjustment, CU believes, is not completely justified. Rotating brush not adjustable, but this is compensated for to a great extent by steel beater bars which won't wear out. Position of handle conveniently adjusted by foot. Belt easy to replace. Headlight inconvenient to replace. Maneuverability very good. Noisiest of all cleaners tested. Complete set of attachments \$11.00 or \$16.50, list. (CU recommends buying cheaper set.) Attachments inconvenient to connect. Low power consumption.

Co-op De Luxe (National Co-operatives, Inc., Chicago). \$29.95. Sold only by co-operative stores. Handle type. Accessible motor brushes. Nap adjustment. Rotating brush adjustable, but adjusting screws difficult to get at. Position of handle easily adjusted. Belt easy to replace. Headlight convenient to replace; has separate switch. Bag relatively easy to remove. Quite noisy. Complete set of attachments for \$8.95. Attachments easily connected (for handle type). Two speeds, both with low power consumption.

Electrolux 12-A Rebuilt. (Rebuilt by the National Vacuum Cleaner Supply Co., 27 E. 14 St., NYC). \$29.95. Tank type. Inaccessible motor brushes. Special provision for removing lint. Bag easy to remove. Maneuverability very good because of swivel nozzle. Inconvenient hand-operated switch. Fairly quiet. Complete set of attachments included. Attachments easily connected. Light.

Eureka R-41 (Eureka Vacuum Cleaner Co., Detroit). \$49.95, list. Handle type. One of the lowest in cleaning ability of all handle cleaners tested. Accessible motor brushes. Nap adjustment. Rotating brush most easily adjusted of all cleaners tested. Belt somewhat difficult to replace. Headlight convenient to replace. Maneuverability fair. Complete set of attachments for \$15.75, list. Attachments easily connected (for handle type). Two speeds, both with low power consumption.

Electrolux 20 (Electrolux Corp.). \$49.50, list. Sold only by house-to-house salesmen. Tank type. Inaccessible motor brushes. Special provision for removing lint. Bag easy to remove and clean. Less maneuverable than other tank cleaners because nozzle has no swivel. Convenient foot-operated switch. Available with only three attachments: round brush, floor brush and small drapery nozzle. Attachments easily connected. Low power consumption. Light.

Magic-Aire 200 (Magic-Aire, Inc., Cleveland). \$64.50, list. Available from Co-operative Distributors (NYC) at \$47.80. Tank type. Inaccessible motor brushes. Adjustable stationary brush (this brush was so long on sample tested that it removed an undue amount of nap from a high pile rug). Bag somewhat difficult to clean because of special framework, which makes it impossible to invert bag. Maneu-

verability very good, although handle somewhat hard to push because of long brush. Convenient foot-operated switch. Complete set of attachments included. Attachments easily connected. High power consumption.

GE Skyline AVF17S (General Electric Co., Bridgeport, Conn.). \$49.95, list. Handle type. Accessible motor brushes. Convenient foot-operated nap adjustment. Rotating brush can be adjusted only twice. Headlight convenient to replace. Bag easily removed (for handle type). Maneuverability only fair because of short handle. Complete set of attachments \$12.95, list. Attachments easily connected (for handle type).

Hamilton Beach No. 26 (Hamilton Beach Co., Racine, Wis.). \$59.50, list. Tank type. Inaccessible motor brushes. Special provision for removing lint. Bag fairly easy to remove and clean. Maneuverability very good, because of swivel nozzle. Convenient foot-operated switch. Complete set of attachments included. Attachments easily connected. High power consumption.

Westinghouse K-503 (Westinghouse Electric Mfg. Co., Springfield, Mass.). \$49.95, list. Handle type. Inaccessible motor brushes. No nap adjustment. Rotating brush adjustable. Position of handle easily adjusted. Belt easy to replace. Headlight convenient to replace. Bag rather difficult to remove on sample tested because of tight suction joint. Maneuverability good. Extra long cord. Very noisy. Complete set of attachments \$14.95, list. Attachments easily connected (for handle type).

Ward's Cat. No.—841 (Montgomery Ward). \$34.95, plus transportation. Handle type. Inaccessible motor brushes. Claim of automatic nap adjustment, CU believes, is not completely justified. Rotating brush adjustable. Position of handle conveniently adjusted by foot-operated lever. Belt easy to replace. Headlight convenient to replace. Maneuverability fair. Very noisy. No attachments available. High power consumption. Heavy.

GE Air-Flo AVT-150 (General Electric Co.). \$59.95, list. Tank type. Lowest in dirt removing ability of all cleaners tested. Inaccessible motor brushes. adjustable stationary brush. Bag easy to remove but

difficult to clean because of special frame which makes it impossible to invert bag. Maneuverability very good, because of swivel nozzle. Convenient foot-operated switch. Complete set of attachments included. Attachments easily connected. High power consumption. Heavy.

Hoover 700 Factory Rebuilt (Hoover Co.). \$35.95, list. Sold mostly by house-to-house

salesmen. Handle type. Accessible motor brushes. Nap adjustment. Rotating brush not adjustable. Position of handle adjustable. Belt easy to replace. Bag easy to remove (for a handle type) but somewhat difficult to clean, because of closed top. Less maneuverable than other Hoovers tested. Very noisy. Attachments difficult to connect. Low power consumption. Heavy.

Men's Hats

There's very little difference between \$3 and \$5 models, CU's tests showed. Here are ratings of 11 brands plus some advice on how to buy and take care of your topper

WHEN a woman buys a hat, she devotes most of her selective energies to matters of style. The male's hat problems are different. Design and color are fairly uniform; quality and price therefore become considerations that are, or should be, doubly important.

A man can pay from 59¢ to \$100 for a hat. But most hats sold are in the \$2 to \$15 price range, with heavy emphasis on the models under \$6.50. CU chose for testing four brands of hats selling at around \$3 and eight brands selling at around \$5. And the first thing the tests showed was that there wasn't really much difference between the \$3 and \$5 hats—certainly not enough to justify the price difference.

If you pay \$2 for a hat, it will most likely be made of wool felt; you'll generally have to pay more than \$2 to get a fur felt model. If you do, you can have your pick of rabbit or hare, nutria or beaver—provided, of course, that you're willing to pay extra for the relatively expensive latter two furs. At present, hat

manufacturers are experimenting with mohair as a substitute for rabbit hair, since imports of rabbit skins have been cut off by the war.

FIRST FUR, THEN FELT, THEN HAT

ALL the furs—and the wools, too—are made into felt in much the same way. The first thing that happens is that the fur or wool fibers are cleaned and sorted; then they're blown onto a rapidly revolving suction cone. The mass that the fibers form there is covered with burlap, and the whole business is immersed in hot water. Then the fibers are kneaded by hand, immersed and kneaded again, until they "set," in the course of which they shrink by about half.

Now you have felt. The kneading continues, and gradually the kneading becomes shaping, and pretty soon you begin to have a hat. Don't try to make a hat on the basis of this description, but—in very sketchy outline—this is about what happens.

What makes the wool felt hats poor buys is that wool fibers lack the natural felting properties of fur. They don't mat together so well, and consequently adhesives—usually shellac—have to be added. That's all right for a while, but in time the shellac crystallizes, and the hat thereupon loses its shape.

Not so with fur felts; adhesives have to be used only in the brims of these, and the felt holds its shape much longer. You can generally tell a wool felt hat by the feel; it's harsh and grainy.

Each and every hat is an individual creation—made out of a special mass of fibers, and separately kneaded and shaped to the particular form it eventually assumes. Result: there's practically no uniformity in a group of hats. If you find two exactly alike, you may be

How 14 Models Ranked in Cleaning Ability

THE list below gives the relative cleaning ability of all cleaners tested—from best to poorest—without regard to any other features:

Hoover 60. \$82, list. Handle type.
Hoover 305. \$52.50, list. Handle type.
GE Skyline. \$49.95, list. Handle type.
Co-op De Luxe. \$29.95. Handle type.
Electrolux 30. \$69.75, list. Tank type.
Magic-Aire 200. \$64.50, list. Tank type.

The two following cleaners were about equal:

Hoover 700 Rebuilt. \$35.95, list. Handle type.

Ward's Cat. No.—841. \$34.95, plus transportation. Handle type.

The two following cleaners were about equal:

Electrolux 20. \$49.50, list. Tank type.
Eureka R-41. \$49.95, list. Handle type.

Electrolux 12-A Rebuilt. \$29.95. Tank type.

Westinghouse K-503. \$49.95, list. Handle type.

Hamilton Beach No. 26. \$59.50, list. Tank type.

GE Air-Flo. \$59.95, list. Tank type.

sure that it happened by accident as much as by intent. So you really can't tell for certain about the durability and quality of a particular hat.

Nonetheless, tests for construction, quality, compactness of felt and the like, reveal something about the probable wearing qualities of hats of particular brands at a certain price.

They also show, for instance, that linings and sweatbands, or methods of attaching these, have little to do with price. Some of the cheaper hats examined had top grain leather sweatbands; and some of the more expensive models used inferior split grain leather. Linings, missing in some of the higher priced hats, were present in cheaper models.

On the other hand, if you want a device for protecting the felt against perspiration and hair oils—and it's definitely desirable—you'll probably have to get a more expensive hat. None of the models under \$3.85 examined by CU included this feature.

All in all, the best advice CU can give you is this: examine a hat carefully before you buy it. Don't put too much reliance on brand names, price or past experience; make sure, insofar as you can, that the particular hat you're considering is an all-round good product.

And don't snap up the first hat that catches your eye; look at two or three others. Give a little attention to the texture. The felt should be smooth, flexible, not spongy. It shouldn't be stiff or grainy to the touch, but soft—something like well-tanned leather.

Make sure that the color is evenly distributed throughout the material. Flick the hat in a few places, and see if a puff of powder arises. If it does, it probably means that the manufacturer has used powder to cover up blemishes resulting from improper dyeing.

The sweatband will be most effective and durable if it's made from real leather—preferably top grain. You can recognize top grain leather by the pores in it, though you'll need a magnifying glass to see them. And turn up the sweatband to see if there's a piece of rubberized or waterproof tape sewn to the bottom. This or some similar arrangement helps keep perspiration from staining the felt.

Choosing a hat carefully is just part of having attractive and long-lasting headgear. The other part is taking good care of your hat once you've got it. Here are a few pointers:

(1) If you can avoid it, don't fold a hat. Hats sold as "knockabouts" generally look it, if you take your cue from the ads. If you *must* fold a hat, fold it lengthwise with the ribbon on the outside, and then roll it from either end towards the middle.



WILL THE FELT CRACK?

Samples of felt from men's hats were bent and creased 20,000 times to see if they would crack. P. S. None did

(2) When you put on a hat, hold it by the front and rear of the brim. Grab it at the tip of the crown, and you'll have an unsightly dent at this point—and eventually a hole.

(3) Don't be afraid of brushing your hat; but use a brush, not a whisk broom. (Always brush "with the nap," from left to right because that's the way the nap runs.) Don't neglect this routine, especially when you're going out into the rain. Dust plus moisture will spot a hat so that even a professional cleaner can't remove the stains.

(4) Rain is distinctly bad medicine for a good hat. But if it can't be avoided and your hat becomes rain soaked, dry it away from the heat lying flat on a table with the crown pushed out and the brim turned up all around. When the hat is completely dry, brush up the nap—from left to right.

(5) After spending a hot day with your hat, be sure to turn the sweatband out to dry. Neglect to do this may mean a discolored and deteriorated sweatband and an unpleasant smelling hat.

(6) When the season ends or even when you put your hat away for a few days, don't toss it in with a pile of other things on a closet shelf. Push out the crown, turn up the brim all around and place it flat in a hat box. Don't stack

hats on top of one another. (This goes for checkrooms, too, if you have any influence with the checkroom girl.)

HOW CU TESTED

CU tested three samples of each brand for general construction, bursting strength and thickness of felt, resistance to crocking (loss of color when rubbed) and ability to hold shape under repeated creasing while both dry and wet. There were only slight differences among hats of various brands and prices.

The ratings below are given in order of quality as determined by CU's tests. However, since differences were so slight, hats at the bottom of the list are not greatly inferior to those near the top. The lower priced hats are the better buys. Since the ratings are based only on the samples tested, it is fully possible that other samples of a brand might come above or below the rating given.

Acceptable

(In order of quality without regard to price)

Stetson (John B. Stetson Co., Philadelphia). A244624, \$5; no lining or extra perspiration protection. B359949, \$6.50; lining and extra perspiration protection.

CONSUMERS UNION Reports

B283681, \$6; no lining but extra perspiration protection included.

Young (Young's Hat Stores, NYC). L5671, \$3.85; lining and extra perspiration protection. K5461, \$3.85; no lining but extra perspiration protection included. B359765, \$5; lining and extra perspiration protection.

Dunlap (Knox Hat Co., NYC). EX18479, EX18473 and EX18488, \$5; lining but no extra perspiration protection.

Knox (Knox Hat Co.). S14136, \$5; no lining or extra perspiration protection. R90055 and R5403, \$6.50; no lining or extra perspiration protection.

Ward's Brent Supreme (Montgomery Ward). Cat. Nos.—8412 and —8431, \$4.89 plus postage; lining had piece of cellophane on top of crown. Sweatband sewn to a piece of lastex which was sewn to hat. Also a piece of lastex inserted in the sweatband for tighter fit.

Mallory (Mallory Hat Co., Danbury, Conn.). 730817, \$5; no lining or extra perspiration protection. 711691 and 673703, \$5; lining but no extra perspiration protection.

Sears' (Sears-Roebuck). Cat. Nos.—6465 and —6460, \$4.98 plus postage; sweatband sewn to two-piece extra perspiration protection which was sewn to hat. Lining had cellophane on top of crown.

Dobbs (Crofut and Knapf Co., South Norwalk, Conn.). S6573, \$5. S34742 and R55578, \$6.50; no lining or extra perspiration protection.

Sears' (Sears-Roebuck). Cat. No.—6420, \$2.98 plus postage; lining but no extra perspiration protection. Cat. Nos.—6434 and —6435, \$2.98 plus postage; no lining or extra perspiration protection.

Adam (Adam Hat Stores, NYC). A112, 338 and G14, \$3.25; no lining or extra perspiration protection.

Ward's Brandon (Montgomery Ward). Cat. Nos.—8252 and —8222, \$2.95 plus postage; lining but no extra perspiration protection. Cat. No.—8246, \$2.95 plus postage; no lining or extra perspiration protection.

Watch For . . .

The November issue of the Reports will be an extra-large (36 pages) Special Christmas Buying Number.

The following reports, among others, have been scheduled for publication in this issue:

Preview of 1942 Autos
Luggage & Leather Goods
Sewing Machines
Bicycles • Footballs
Record Albums
Chemistry Sets

October, 1941

Depilatories: Use with Care

No one method of removing superfluous hair is permanent, safe and painless. CU reports on what depilatories can and can't do for you, and how not to use them, and gives ratings of 37 brands

DO YOU suffer from hypertrichosis? So far as we know, copywriters haven't discovered the word yet. But just give them time. When they do, we have no doubt that it will take its place right alongside halitosis, lordosis and all other such words that advertisers like to use to make their claims sound impressive. Its meaning is simple enough: superfluous hair growth.

In March 1938 CU declared that a substantial fortune awaited the discoverer of a process for removing hair safely, painlessly and permanently. As yet, no one has been able to deliver.

Though it's known that hair growth is controlled by internal secretions of the endocrine glands, medical science hasn't yet found a way to regulate endocrine secretions and hence control hair growths. Until science makes some progress in this direction, women will do well to eye with extreme suspicion any product claiming to treat hair growth internally.

That leaves external treatment as the only effective means of removing superfluous hair. All of the available methods should be approached with caution. The most careful use of either mechanical or chemical methods has its hazards; indiscriminate use may mean serious damage to the skin.

PERMANENT METHODS

THE MOST satisfactory way to remove hair permanently is by electrolysis, in which an electric needle is inserted along each hair shaft to the root, destroying the hair at its source. Because this must be done individually to each hair, the process is tedious, to say the least. It's also moderately painful (enough so that it can't be used on sensitive portions of the body, such as eyebrows and armpits). What's more, it's not always permanent. And there's an ever present possibility of scarring or infection.

For these reasons, electrolysis treatments should be administered only by expert operators. The single needle method is less likely to produce scarring than the multiple needle method.

Diathermy (high frequency currents) and X-ray treatments have been pressed into service as permanent hair removers. But the former is not very reliable, and

the latter, involving the hazard of incurable burns, should *never* be used.

Operators, to keep from frightening away potential customers, sometimes advertise X-ray treatments as "special systems" or "short wave treatments." Be wary of these "systems." And don't invest in electrical equipment for self-removal of hair; without exception, such equipment is dangerous.

These are the permanent methods. They aren't very satisfactory, but they're all there are.

TEMPORARY METHODS

ANYTHING else can have only a temporary effect on hair growth and, in addition, is apt to be either painful or a potential source of infection.

Tweezing (pulling out hairs one by one) and wax epilation (using a wax covering to pull out a mass of hairs) require Spartan fortitude. And if you don't clean the instruments and the skin carefully infection can set in.

Instead of tearing out the hair, abrasives—pumice stone or emery pads that fit in the hand—rub off the hair shafts. It's a tedious job at best, and may result in infection if the skin is abraded.

Chemical depilatories are more widely used than mechanical methods, partly because they're quicker, partly because they're less painful. They're also dangerous.

Regardless of ingredients, all chemical depilatories act in much the same manner: they dissolve the hair shafts. What some women fail to realize is that, since the hair and the skin are chemically similar, depilatories must have some destructive effect on the skin. For this reason, they must be used with great caution and never—manufacturers' recommendations notwithstanding—on armpits, face or broken skin.

Most depilatories contain alkaline sulfide, a chemical which finds great use in de-hairing hides. The sulfide depilatories can be recognized by their distinct "rotten egg" odor, despite attempts of manufacturers to cover it with strong perfumes. Some depilatories also contain a poisonous soluble barium salt. Because of their potential danger, CU cannot recommend their use.

Recently chemical depilatories have

been made with an organic sulfur compound (Calcium Thioglycollate). Milder both in action and odor than the alkaline sulfide depilatories, they are safer for general use.

You can get depilatories as creams, powders or liquids. The liquids are generally too alkaline, odorous and unstable for general use. The powders, though more stable, are less convenient to use than the creams, since they must be mixed with water before applying.

We can't repeat too many times or too strongly that extreme caution should be exercised in using any chemical depilatories. Here are some suggestions:

(1) When you're opening or squeezing the container, hold it away from your eyes.

(2) If your skin is hypersensitive you may not be able to use a chemical depilatory. So, before you apply one extensively, place some on a small area of skin. If a rash or itchiness develops during the time required to remove the hair, don't use the preparation.

(3) If you find you can use it, apply the depilatory in thin layers (about one-eighth of an inch), using only wood applicators. Don't allow the paste to dry on the skin; if necessary, keep it moistened with water.

(4) Never allow a depilatory to remain on your skin longer than 10 minutes; any of them should act within two to eight minutes.

(5) When the time is up, wash off the paste with cold or tepid water, removing the hair with it. Don't rub the treated area or use a soap or deodorant immediately afterwards. Pat the area gently and finish off with talcum powder, if you wish.

(6) Never use a depilatory more often than once every two weeks.

Manufacturers of hair removers will have to go a long way to find a safer and quicker method than shaving. Contrary to common opinion, shaving increases neither the rate of growth nor the coarseness of hair. You may get the impression that it does, but it's only because a razor removes the hair shafts at skin level, so that the hair doesn't have to grow very much before it begins to show again. A chemical depilatory, on the other hand, dissolves the hair shaft below the skin so that it takes one to three weeks for hair to appear.

If superfluous hair is fine, but dark, bleaching may make it less conspicuous. An ounce of fresh hydrogen peroxide (3% to 6%) plus a few drops of household ammonia makes a good bleach.

HOW CU TESTED

CU tested from one to four samples of 11 brands of mechanical hair

removers and 26 brands of chemical depilatories. Because of their painfulness or low effectiveness none of the mechanical methods can be given a very high rating.

In the chemical depilatories most consideration was given to the percentage of active ingredient present, but brands were also examined for odor, uniformity, consistency, stability, impurities, type of compound, adequate label warnings. Liquid depilatories were rated "Not Acceptable" because of their instability or alkalinity.

Chemical depilatories containing soluble barium salts were rated "Not Acceptable" because of their potential hazard.

All brands of chemical depilatories were weighed to see if they conformed to the stated net weight on the labels, or to determine the weight when not stated. Costs per ounce given in the ratings are based on these measured weights.

Remember that the depilatories are rated "Acceptable" only on the condition that they are used with proper precautionary measures. For this reason it's best to buy brands which state the active ingredient and give adequate directions and warnings.

Acceptable

(In order of quality without regard to price)

THIOGLYCOLLATE CREAMS

Imra (Artra Cosmetics, Inc., NYC). 65¢; cost per oz., 26¢. Active ingredient declared.

Sleek (Elizabeth Arden, NYC). 60¢; cost per oz., 27¢. Active ingredient declared.

Nair (Carter Products, Inc., NYC). 39¢; cost per oz., 20¢. Active ingredient declared.

Wisk (Sales Affiliates, Inc., NYC). 61¢; cost per oz., 24¢.

SULFIDE CREAMS OR PASTES

Zip (Madam Berthé, NYC). 23¢; cost per oz., 6¢.

DeWans (Associated Distributors, Inc., Chicago). 87¢; cost per oz., 22¢.

Neet (Affiliated Products, Inc., Jersey City, N. J.). Large size, 49¢; cost per oz., 20¢. Small size, 10¢; cost per oz., 25¢.

Del-A-Tone (The Delatone Co., Newark, N. J.). 31¢; cost per oz., 7¢. Stated net weight found to be short.

SULFIDE POWDERS

"4711" (Ferd Mulhens, Inc., NYC). 85¢; cost per oz., 53¢. Declared active ingredient: Strontium Sulfide.

Del-A-Tone (The Delatone Co.). 59¢; cost per oz., 59¢.

Zip (Madam Berthé) 39¢; cost per oz., 31¢.

DeWans (Associated Distributors, Inc.). 52¢; cost per oz., 26¢. Declared active ingredient: Strontium Sulfide.

Snow (Artnell Scientific Brands, NYC). 39¢; cost per oz., 8¢.

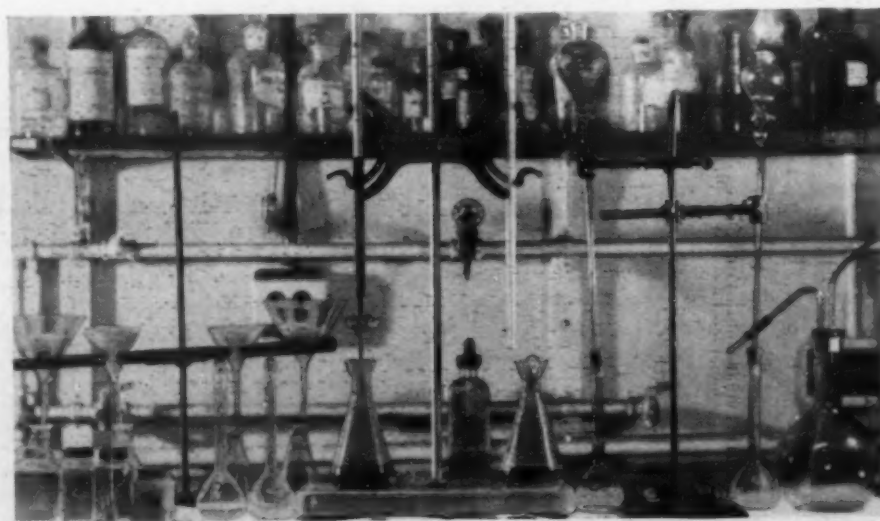
ABRASIVES

(In order of increasing cost)

Beauty Maid Pad (distributor or manufacturer not stated on label). 10¢ a pad.

E-Z Pad (Platinum Laboratories, NYC). 10¢ a pad.

Baby Touch Pad (Baby Touch Hair Remover Co., St. Louis). 33¢ a pad.



"HOW CU TESTED"

With the chemical equipment shown here, a CU technician found the amount of sulfide present in the depilatories (coded samples of some of the brands tested appear at the bottom of the picture)

Lechler's Velvet-Stohn (Lechler Laboratories, NYC). \$1 a cake. Pumice stone.
Bellin's Wonderstoen (Bellin's Wonderstoen Co., NYC). \$1.25 a cake. Pumice stone.

WAXES

(In order of increasing cost per ounce)

Facile (Facile Cosmetics, Ltd., NYC). \$1.50 for 11-oz. jar. Cream wax.

Zip (Madam Berthé, NYC). 54¢ for 3½-oz. cake. Hard wax.

Magie (Helena Rubinstein, NYC). \$2.50 a kit; included wax, heating pan, and after-treatment cream. Refills available at \$1.25 for 4-oz. wax. Hard wax.

Electra (Elizabeth Arden, NYC). \$2.50 a kit; included wax, heating pan, and after-treatment cream. Refills available at \$2 for 5-oz. wax. Hard wax.

Dawson's (Granwell Sales Co., NYC). 96¢ for 2-oz. jar. Cream wax.

Phelactine (Dearborn Supply Co., Chicago). 89¢ for ½-oz. stick. Hard wax.

Not Acceptable

LIQUID SULFIDES

De Miracle (Consolidated Drug Trade Products). 51¢; cost per oz., 51¢.

Zip Lotion (Madam Berthé). Large size, 33¢; cost per oz., 17¢. Small size, 10¢; cost per oz., 20¢.

(Although suitable for use with proper precaution, the following are not recommended because they contain poisonous barium salts.)

SULFIDE CREAMS OR PASTES

Evans' (George B. Evans Laboratories). 49¢; cost per oz., 9¢.

Odo-ro-no (The Odo-ro-no Co.). 49¢; cost per oz., 9¢. Misbranded: net weight not stated on label.

X-Bazin (Hall & Ruckel, Inc.). Large size, 27¢; cost per oz., 8¢. Stated net weight found to be short. Small size, 10¢; cost per oz., 20¢.

SULFIDE POWDERS

X-Bazin (Hall & Ruckel, Inc.). 41¢; cost per oz., 34¢.

Evans' (George B. Evans Laboratories). 69¢; cost per oz., 61¢.

Gordon's Ex-Hair (Gordon & Gordon). 75¢; cost per oz., 75¢. Misbranded: net weight not stated on label.

Bonney (Bonney, Inc.). 60¢; cost per oz., 37¢.

Colonial Dames (Colonial Dames, Inc.). 50¢; cost per oz., 40¢.

Magie (Shaving Powder Co.). 25¢; cost per oz., 5¢.

Tidy (Carrel Distributors). 49¢; cost per oz., 25¢.

Biff (E. Burnham Laboratories). 75¢; cost per oz., 30¢.

Growing Plants Without Soil

... isn't quite the miracle-working process it's sometimes made out to be. But for amateurs who want to try it as a hobby, CU here presents some information on methods and materials

SOILLESS culture or solution gardening—growing plants without soil—is not, for the amateur, quite the miracle-working process commercial demonstrations would lead him to believe it is. But it does require considerable skill and knowledge, and the beginner will do well if he can grow plants as well in solution as in ordinary garden soil.

Nevertheless, it's a new field for experiment, with conditions easily controllable by the experimenter. For those who enjoy pioneering, soilless plant culture can become an engrossing hobby—as it has for increasing numbers of people.

The basic idea of growing plants minus ground into which they can dig their roots is perfectly simple, even though the results still startle people. What makes plants grow in soil is the nutrients placed there by mineral deposits, decay of organic matter, &c. Provide plants with those same nutrients—by means of a solution, for instance—and they'll grow without soil.

But pushing nutrients into plants through solution instead of soil doesn't change their natural properties; consequently fruits, vegetables or flowers raised in solution have much the same requirements as soil-grown plants. Whether soil or solution is used, water must be added regularly to replace that absorbed by plants. Proper temperature and sufficient light is needed in both cases. Moreover, plants in solution culture are apparently just as susceptible to disease and insect pests as plants in soil. So you can't dispense with the usual pest control measures, though they sometimes must be modified to avoid poisoning the solution.

TANK EQUIPMENT

IF YOU'RE a newcomer to soilless gardening, you might start with sand culture—something of a halfway step between old-fashioned dirt gardening and solution culture. Sand culture has advantages for beginners: a less careful compounding of the solution is needed than for regular soilless gardening, and the sand provides good support for plants.

THIS article was prepared under the supervision of Dr. Karl A. Grossenbacher, formerly connected with the Division of Plant Nutrition at the College of Agriculture, Berkeley, Cal., and now engaged in research work at the Biological Laboratories, Harvard University. He is a member of the American Ass'n of Scientific Workers.

Place your plants in a box or tank with sand, gravel or cinders, and irrigate this culture once a day or oftener with a nutrient solution (you can collect the solution and reuse it several times). You must be careful to provide proper drainage for the culture, so that plants will get adequate air. But, on the other hand, the bed mustn't dry out between irrigations. To prevent accumulation of salts in the culture, flush it out every now and then with water.

When you progress to regular, bona fide solution culture, the equipment becomes slightly more complicated. You'll need a tank three to twelve inches deep, made of wood, concrete or painted iron. Or you can dig a hole in the ground, line it with roofing paper tar-sealed at the corners, and use this for a tank.

The tank must have some sort of a cover, both to support the plants and to prevent mosquitoes or algae from breeding in the solution. One possibility is a simple wood or iron cover with holes through which the plants can protrude. As the plants grow larger they must be supported in some way. But while the plants are still young, they can be held in the hole with some non-absorbent cotton.

A more elaborate and possibly more convenient arrangement is a mulch cover. This consists of a frame two to four inches deep, open at the top but with a bottom made of one-quarter to one inch painted mesh hardware cloth. The frame is filled with excelsior or shavings so that it forms a porous mat. The plants are placed in the frame and then the whole thing is put over the tank so that the roots of the plant dip into the solution below. The mulch

cover gives more support to plants than plain covers and is especially valuable in growing many bulb and root crops (lilies, beets, potatoes).

Whatever kind of tank or cover you choose, all the materials coming into contact with the solution must be non-poisonous. In general, avoid galvanizing (zinc); brass, lead, some types of wood and paint. Black iron, tin, enamelware, glass, glazed ware, porcelain, cement, most woods, some asphalt paints and spar varnish should prove harmless.

SOLUTIONS

SCIENTISTS have developed numerous formulas for plant solutions in the 80 years since soilless gardening got started. Present day commercial solutions, based on these formulas, usually include, in addition, some "minor elements" which have been found necessary in the last 25 years. As yet it hasn't been shown satisfactorily that any one formula is generally superior to others, though a particular formula may be better for particular plants under certain climatic conditions.

Unfortunately there are many commercial concerns throughout the country which are exploiting the layman's lack of knowledge. The few people who are venturing into the field on a "production basis" are able to obtain competent technical assistance. But the many amateurs who simply make a hobby of soilless gardening can waste a lot of money buying commercially prepared solutions at five to thirty times the cost of their ingredients. Furthermore, the commercial approach robs the hobby of much of its pleasure.

For soilless gardening fans who want to make up their own solutions we present a formula developed by the California Experiment Station (see table). You'll be able to make the solution most cheaply if you buy the ingredients in fairly large quantities from commercial chemical houses or fertilizer distributors. Obtained from the drugstore in chemically pure form, they'll be four or five times more expensive (still less costly than many commercial solutions, though). And a high degree of purity isn't necessary at all; the ordinary commercial grades are sufficiently free from poisonous impurities.

(There are indications that the defense program may cut the supply of certain chemicals needed for solutions. It's still easy to obtain pure grades; but some of the commercial grades are being restricted. And it's hard to tell what will happen to prices. If you definitely plan to try soilless culture, better buy what you need soon.)

One thing you must keep in mind.

"Major Element" Solution

THIS solution may be made up and stored at 10 times this concentration (2½ gallons), then diluted before use. For herbaceous crops such as tomatoes, corn and melons, or flower crops such as geraniums, marigolds and even sunflowers, the solution described here should be quite satisfactory. For slower growing, woody plants, however, better results will probably be obtained by using this solution at one-third or one-tenth of this concentration.

NAME	CHEMICAL FORMULA	AMT. FOR 25 GALS. CULTURE SOLUTION	
		Oz.	Level tbsps
Potassium phosphate (Monobasic).....	KH ₂ PO ₄	1/2	1
Potassium Nitrate.....	KNO ₃	2	4
Calcium Nitrate.....	Ca (NO ₃) ₂	3	7
Magnesium Sulfate.....	MgSO ₄	1 1/2	4

"Minor Element" Solutions

	NAME OF SALT	AMT FOR 1 GAL. OF "MINOR ELEMENT" SOLUTION (IN LEVEL TSPS.)	HOW TO USE
1. Iron (Add as often as 3 times a week if plants get yellow)	Iron tartrate (or iron citrate or sulfate)	4	1/2 cup of solution for 25 gals. of culture (i. e., 1 tsp. per gal.)
2. Boron & Manganese (usually add only to new solution)	Boric Acid (or Borax)	4	
	Manganese chloride	1 1/3	1 tsp. for 25 gals. of culture (i. e., 1 to 3 drops per gal.)
3. Copper & Zinc (usually not needed since these small amts. will be present as contamination as well as molybdenum and other essential elements)	Zinc sulfate	4	
	Copper sulfate	1	

while making up the solution, is that some chemicals will go out of solution if mixed in too high concentration. Though this won't harm the plants, they'll be deprived of valuable food nutrients. To prevent precipitation, dissolve each salt separately and then pour it into the proper amount of water.

Iron and phosphorus won't stay in solution unless the culture is slightly acid. In most cases, the desired degree of acidity will be maintained as long as the major components of the solution are properly balanced. But in areas where the natural source of water is alkaline (the Southwest), special ingredients, such as sulphuric acid, may be needed to adjust the acidity. You should dilute the sulphuric acid and use it sparingly, testing the acidity with litmus paper.

Where the normal water supply is generally not satisfactory, the use of rain water or distilled water in solution cultures is one way of solving the problem. But it's usually difficult to obtain such pure water; and moreover, purity is essential only in experimental control of solution culture methods, not for amateur soilless gardening.

Remember to keep bottles of solution stored away from the light, and the entire culture covered. Otherwise, growths of green slime (algae) may appear.

AIR, LIGHT, HEAT

PLANTS won't grow any place—in soil or solution—if their roots don't get oxygen. As long as plant roots in tanks aren't matted or aren't too deep in the solution, the oxygen from the air will be sufficient. But for dense root growths or plants grown in deep tanks, you'll probably have to resort to artificial aeration. You can use aquarium pumps and aerators for comparatively small cultures, but when you progress to large-scale cultures, you'll find a circulating solution or a regular compressed air system with porous carbon tube aerators more practical. But young plants may be injured by forced aeration.

If the light available to the culture is inadequate, it's wise to keep the temperature low (50° to 70° F). With full sunlight and long summer days, plants will generally grow well in solution at high air-temperatures (70° to 90° F). But each type of plant has its own special requirements with regard to light and heat; successful gardeners must learn these and bear them in mind.

YOUNG PLANTS

YOU MAY find it easier to start plants in sawdust or sand or soil. Then, when they're large enough to be

handled readily, they can be transplanted to tanks filled with solution. To move young plants, flood the area around them with water, pull or dig up the roots gently, rinse in a bucket of water, and place the plants in the solution—without breaking the roots or letting them become dried out. If plants are protected from the direct sun for a day or so after transplanting, they can stand considerable root injury.

It's wise to put young plants into solution which has been diluted to between 1/10 and 1/2 of its normal concentration. This solution needn't be changed for the first three or four weeks. But as the plants grow larger, they absorb nutrients rapidly so that the solution requires frequent replenishing. How frequent depends upon the degree of concentration of the solution, the amount of solution provided for each plant and the size and rate of growth of the plants.

For example, one quart of full strength solution will maintain five tomato plants for four weeks—until they grow a foot or so tall. After this point is reached, the tomato plants must have much greater quantities of solution—from one to five gallons per plant. And it must be changed each week.

EXPERIMENT AS YOU GO

YOU'LL get the most enjoyment and profit from hydroponics (the fancy name for soilless gardening) if you approach it from the experimental angle. If possible, grow the same plants, side by side, in rich soil, in sand culture and in solution culture. This way you'll be able to compare methods and results. Later on, as your technique improves, you can branch out, experimenting with different methods and solutions, and testing new ideas.

For instance, you might enjoy experimenting with growth-producing compounds. Recent investigations have shown that small amounts of organic substances added to solutions may have a pronounced effect on the growth of certain plants under certain conditions.

Some plants (tomato) which root easily can be grown in solution culture from cuttings. It's been found that treatment of cuttings with growth hormone solution (indole 3 acetic acid, or similar compounds, at from 1 to 200 parts per million, used for 6 to 24 hours) is helpful in producing root growth on cuttings, especially in plants which usually don't grow from cuttings. Solution or dust treatment of the base of cuttings may also aid growth.

Very low concentrations of indole 3 acetic acid (about 1/200 part per million) have been found to be beneficial to



BLACK STAR

THE SEEDS ARE "PLANTED"

Germinated seeds are placed on top of a mesh cover. Beneath is the tank containing nutrient solution. Beginners may find it easier to start plants in sawdust, sand or soil and then transplant them to solution culture when they are large enough to be handled



BLACK STAR

THE PLANTS GROW

... their roots extend down through the mesh cover and gather nutrition from the solution. While young, plants require relatively small amounts of solution; as they mature, plants must have more nutrients. Throughout their growth, they need water, proper temperature and sufficient light—just like plants grown in soil

growth of plants in solution or sand culture. Higher concentrations are less beneficial, and possibly even harmful. Soaking seeds in solutions prior to germination may also be helpful for general growth of plants.

One investigation indicated that vitamin B₁, used at about 1/10 part per million, increased root and plant growth. This has resulted in exceedingly extravagant advertising claims, not yet definitely justified. In the past months laboratory research has revealed that it is possible

to grow vigorous plants in solution culture without the addition of B₁, and that in some cases B₁ is positively not beneficial. There is nothing against amateurs experimenting with B₁, but they should realize that the present weight of scientific opinion is against it as a valuable organic substance for successful solution gardening.

The amateur should find controlled experiments with organic substances interesting and profitable. But you mustn't be either too discouraged or too optimistic if a few of your plants get sick or if, on the other hand, they flourish like the flowers in May.

Available Publications on Soilless Culture

Bulletins of various state agriculture experiment stations are the best sources of information on soilless culture. Though limited in scope and often technical, they present in the most available form what is actually known on the subject. And they're usually free or very inexpensive.

Especially valuable are the publications of the New Jersey Experimental Station at New Brunswick, N. J., and the Agricultural Experimental Station at Berkeley, Cal.

Numerous books have been published on the subject of soilless culture and most bookstores carry one or more in stock. Most of these leave much to be desired.

It is the belief of CU's consultants that the amount of research done in the field of soilless culture is not sufficient as yet to form a proper basis for a book which can actually serve the amateur. Most of the existing publications tend to emphasize extravagant claims or personal observations.

Perhaps the soundest and most rewarding of the available books are the following two:

Complete Guide to Soilless Gardening by W. F. Gericke. Prentice-Hall, New York; \$2.75.

Soilless Culture Simplified by A. Laurie. McGraw-Hill Publishing Co., New York; \$2.50.

Dr. Gericke, one of the many research workers in plant nutrition, was the first to apply the technique of solution culture to commercial production. He has spent some time developing suitable techniques.

Professor Laurie has for years been an active research worker in the field of horticulture and plant physiology.

The Diaper Problem

... can be handled three ways: you can throw them away after the baby is through with them, wash them yourself, or let a diaper service do the work. CU examines the pros and cons of these possibilities, rates 33 brands

DIAPERS are distinctly a major part of a baby's wardrobe. And they're practically a major problem for the baby's mother—who has to buy them, change them, and dispose of them when they become soiled.

CU can't find any solution to the changing problem; mothers will probably have to keep on doing that for some time. But there are ways of dispensing with the washing, and even with the buying. One way of accomplishing both of these things at the same time is to use a diaper service.

One way of dispensing with the washing is to buy the so-called "disposable" diapers which can be thrown away after one use.

Both of these methods cost about the same, but the diaper service has superior conveniences. Such services, available in most large cities and many small ones as well, do practically everything for you but change the baby. They provide diapers, and twice a week call for soiled ones and leave a fresh supply in a sealed package. They furnish an interlined can in which soiled diapers may be kept, and they change the lining every time they come to collect.

Since it's extremely important that diapers be laundered under sanitary conditions, you should investigate a diaper service before you use it. (There doesn't seem to be any standard or regular inspection of these laundries by local authorities.) You can ask your Board of Health for information or, better yet, go through the plant yourself and observe whether the necessary sanitary precautions are being taken. The plant should be generally clean; and workers who wrap or in any way handle the laundered diapers should wear gloves or be required to dip their hands in antiseptic solution after they touch any unclean object.

Disposable diapers generally consist of a sheet of non-absorbent paper, a few sheets of absorbent paper and an inner lining of loosely woven gauze, all held together by staples, stitching or by paste.

The disposability of these diapers seems to be a relative matter. You can't throw them into the toilet without cut-

ting or tearing them into smaller pieces. But, if you have access to an incinerator or a large garbage can, you can get rid of them without much bother. They are of greatest use when you are traveling.

Similar in construction and disposability, diaper pads are designed for use in special diaper pants. The pants have pockets into which the ends of the pad should fit.

Both paper diapers and pads are expensive. The diapers cost from 25¢ to 65¢ a dozen; the pads from 17¢ to 20¢ (a diaper service charges about 25¢ a dozen). Moreover, paper diapers, compared with cloth diapers, are stiff and harsh, and generally less comfortable. So, if you dislike washing diapers, and can afford the outlay, a diaper service is a better solution for you than disposable diapers.

More useful than paper diapers are paper linings for cloth diapers. These linings, which resemble cleaning tissue in appearance, are water-repellent. They are useful for traveling, since they make disposal easy at a low cost.

But all of these things call for extra cost, and the great majority of families can't afford it. So thousands of mothers will have to go on washing diapers at home. This task, however, needn't be so onerous as it's often made out to be. The important thing is to have an adequate supply of diapers and to wash them regularly.

You can get rid of most of the soil by holding the diaper in the toilet bowl and flushing the toilet until the diaper is relatively clean. Then place it in an interlined can until you're ready to wash it. If you can wash the day's accumulation of diapers each night, you won't find it so much of a burden. A sufficient supply on hand (about three dozen) should prevent a shortage of clean diapers in any normal situation.

There's no simple answer to whether flannel, birdseye or gauze diapers are "best." Flannel diapers have the greatest absorbing qualities, but require the longest drying time. Birdseye diapers absorb less moisture, but dry more quickly. And gauze diapers are least absorbent, but they are the speediest of all in drying time.

Correction

IN THE report on 1941 refrigerators in the June issue, it was stated that the Gibson CU-631 and the Coronado GD 641 refrigerators were the same. Gamble Stores, distributors of both refrigerators, has informed CU that the Coronado GD 641 has the following features not possessed by the Gibson CU-631: panelite strips around the door, two large sliding vegetable crispers, one additional small shelf and a tilt-type dry storage bin.

For obvious reasons, absorption in diapers is important. Yet none of the cloth diapers tested by CU was absolutely satisfactory in this respect. All of them allowed moisture to come through. Tests indicated that there were only unimportant differences between the various fabrics in this respect; consequently, this factor was not considered in rating the diapers.

Which type of diaper is the softest and most comfortable depends on the baby who has to wear it. Mothers' arguments on this subject seem to indicate that different babies are affected by different fabrics. Thus, though flannel is naturally very soft, some babies can't stand the fuzzy nap.

Other babies find the relative stiffness of gauze too harsh.

And still other babies are annoyed by the patterned birdseye.

On the other hand, some of the hardier babies who can stand almost anything, are just as content with one material as with another.

The best solution is to buy a few diapers of each fabric and try them on your baby. If one type chafes him, discard it. If the baby isn't bothered by any of them, choose the type that you find easiest to use.



"The type of diaper to buy depends on the baby who has to wear it."

CU tested cloth diapers for resistance to abrasion, weight and thread count, and tensile strength (before washing and again after three hours and six hours of boiling).

Ratings are based on all-round strength and weight.

The sizes given in the ratings are those marked on the bought diapers. All the diapers tested measured close to their marked sizes and none shrank excessively. Prices given are, in each case, prices paid by CU for a dozen diapers.

FLANNEL

Best Buys

The following diapers of the "Acceptable" list are judged to offer the best value for the money in order of quality. For details see listing below.

Ward's Cat. No.—3199. \$1.52 plus postage.
Sears' Cat. No.—3091. \$1.29 plus postage.

Acceptable

(In order of quality without regard to price)

Simplifold (Broadway Dep't Store, Los Angeles). \$1.95. Shaped to fit without bulky crotch. Extra heavy diaper.
Super Twilled (Bullock's, Los Angeles). \$2.25. 27x28½. Extra heavy diaper.
Ward's Cat. No.—3199 (Montgomery Ward). \$1.52 plus postage. 30x30. Napped on only one side giving better resistance to abrasion.
Baby Aristocrat (May Co., Los Angeles). \$2.25. 27x27.
Sears' Cat. No.—3091 (Sears-Roebuck). \$1.29 plus postage. 27x27.
Blue Diamond (Hearn's, NYC). \$1.98. 30x30.

Babycrest (Associated Merchandising Corp.¹). \$1.79. 30x30.
Macy's (R. H. Macy & Co., NYC). \$1.41. 30x30.
Comfort (National Dollar Stores, San Francisco). \$1.18. 27x27.
Baby Anne (F. W. Woolworth Stores). \$1.27x27.
Darling Baby (Gimbel Bros., NYC). \$1.79. 30x30.
Snowdown (5th Avenue Dep't Store, Los Angeles). \$1.40. 27x27. Low tensile strength and resistance to abrasion.
Nursery (J. C. Penney Stores). 98¢. 27x27. Low count, lightweight diaper with low tensile strength.

BIRDSEYE

Best Buys

The following diapers of the "Acceptable" list are judged to offer the best value for the money in order of quality. For details see listing below.

Sears' Cat. No.—3050. \$1.27 plus postage.
Nursery. \$1.08.
Baby Dot. 86¢.

Acceptable

(In order of quality without regard to price)

Sears' Cat. No.—3050 (Sears-Roebuck). \$1.27 plus postage. 27x27. Extra strong diaper.
Macy's (R. H. Macy & Co., NYC). \$1.39. 30x30.
Babycrest (Associated Merchandising Corp.¹). \$2.50. 24x48.
Nursery (J. C. Penney Stores). \$1.08. 27x27.
Ward's Cat. No.—3194 (Montgomery Ward). \$1.25 plus postage. 20x40.

¹ For a nationwide list of A.M.C. stores, see page 11 of the 1941 *Buying Guide*.

Cupid (Weinstein Co., San Francisco). \$1.29. 27x27.
Baby Dot (S. H. Kress Stores). 86¢. 27x27.
Darling Baby (Gimbel Bros., NYC). \$1.69. 30x30.
Blue Diamond (Hearn's, NYC). \$1.27x27.
Baby Anne (F. W. Woolworth Stores). \$1.16. 27x27.

GAUZE

Best Buys

The following diaper of the "Acceptable" list is judged to offer the best value for the money. For details see listing below.

Sears' Cat. No.—3074. \$1.39 plus postage.

Acceptable

(In order of quality without regard to price)

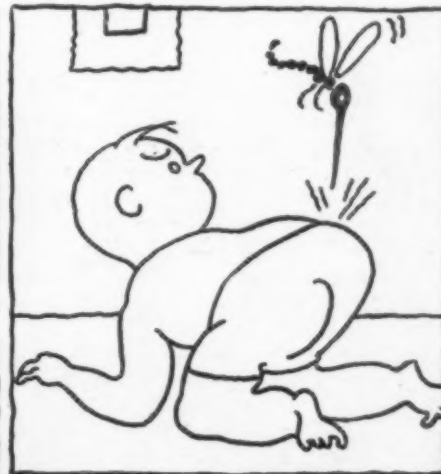
Sears' Cat. No.—3074 (Sears-Roebuck). \$1.39 plus postage. 20x40. Outstanding in quality.
Macy's (R. H. Macy & Co., NYC). \$1.27. 21x40.
Dry Fast (Cannon Mills, NYC). \$1.59. 21x40. Appeared to be the same as *Macy's* (above). Had same count, weight, and strength and was packed in the same type and color box.
Babycrest (Associated Merchandising Corp.¹). \$1.79. 20x40.
Curity (Kendall Mills, Walpole, Mass.). \$1.79. 21x40.
Blue Diamond (Hearn's, NYC). \$1.44. 20x40.
Chix (Chicopee Sales Corp., NYC). \$1.98. 20x40.
Vanta (Earnshaw Knitting Mills, Newton, Mass.). \$1.98. 20x40.
Ward's Cat. No.—3173 (Montgomery Ward). \$1.29 plus postage. 20x40.
Nursery (J. C. Penney Stores). \$1.38. 20x40.



"Washing diapers needn't be so onerous as it's often made out to be"



"All of the diapers tested allowed some moisture to come through"



DRAWN FOR CU BY GARDNER REA

"Some babies can stand anything"

The Radio Repairman

... won't be so likely to gyp you if you know what you can fix yourself, what you have to let him fix, and how to check up on him. CU makes a few suggestions.

THE RADIO repair man will gyp you if you don't watch out. That's the title and that's the essence of an article in the August issue of *Reader's Digest*, wherein the experiences of two roaming investigators in 304 of the nation's radio shops were described.

Into each shop the investigators took a radio which "a few minutes before . . . had been playing perfectly, but which was deliberately put out of order by the investigators, sometimes by disconnecting a snap-on wire, usually by loosening a tube."

61% of all the shops visited, and 90% of the shops in large cities, tried to take advantage of the investigators' supposed ignorance, either by charging for unneeded or unperformed services or by replacing undamaged parts. "The first 36 shops visited . . . sold the investigators 32 new tubes. Not one was needed."

In one case, after the investigators had been sold a new tube and had demanded their old tube back, the service man "went to the shelves stocked with cartons of new tubes, and . . . took . . . our tube [which] . . . he had simply added . . . to his own stock."

Persons familiar with the operation and servicing of radios have been aware of the frauds involved in radio repairing for some time; the general public has only suspected them. Now that the facts are out, various radio service magazines are busily offering apologies, on one hand, and inventing flaws in the investigators' methods, on the other.

Consumers need have no doubts, however, that the facts and implications of the *Reader's Digest* article are substantially correct. The investigators seem justified in concluding that you run most chance of getting gypped in large cities, and are most likely to get a fair deal in small towns where the service man must be more careful of his reputation.

The answer to the question: "Why is there so much deception and gypping in radio repairing?" is certainly, in part, that there are many too many service men for the market to support. Requirements for going into the business are simple: more or less knowledge of radios and a table to work on. The results: a terrific surplus of service men—both bona fide and tinkers—and almost an economic compulsion for repair men to overcharge

on each job. Moreover, a customer will often consider that after having his set fixed once, he is entitled to free repairs if anything else goes wrong. Thus the repairman overcharges partly to cover such nuisance service calls.

CHECK IT YOURSELF

WHAT can the consumer do about this state of affairs? CU in this report takes up where *Reader's Digest* leaves off, with some advice to help the consumer keep his radio repair costs down.

Although people can't become radio repair experts by reading an article, they can learn to look for and recognize a few basic disorders, which are responsible for much faulty radio performance. They then may be able to avoid taking their radio to a service man who may charge for repairs that weren't necessary.

Defective aerials are common causes of radio trouble. If your radio has a bad, irregular crackle, disconnect the antenna and ground from the radio; then, with a short piece of wire, connect together the aerial and ground posts (or connect the aerial connection to the chassis if there is no ground post) and turn up the volume control. If the crackle has disappeared, the fault probably lies in the aerial. Inspect your aerial to make sure that it is not touching metal objects or other aerials. If your aerial is not all one piece of wire, make sure that the joints aren't loose. (And if you are installing a new aerial, make it all one piece from the radio to the extreme far end.) If your aerial is all right, look at other aerials, or hanging pieces of wire, and make sure they are not rubbing against each other or against metal objects. They can affect your radio even if they are in no way connected with it. Look also for loose connections on nearby appliances or lamps.

If your radio becomes generally insensitive, so that only strong stations can be heard, connect a piece of wire at least five feet long to the aerial post of the radio. If the reception becomes louder, the aerial wire is improperly connected or broken somewhere near the radio. In cities satisfactory reception can often be obtained without any aerial at all (not even a loop antenna), if a wire is connected from the aerial

post of the radio to the steam or water pipe.

In some, though very few, cases of noisy radios, you may be able to eliminate the noise by connecting a wire from a water or steam pipe to the ground post of the radio. The ground post as often as not will be a black wire some six inches long sticking out at the back of the radio. It's a good idea to have a ground connection anyway—if a ground post or wire is provided—because it will reduce the shock hazard in some radios.

Hum in a radio operating on a-c can often be eliminated or reduced by reversing the electric plug in the wall socket, or by moving away any appliance or lamp that is standing too close to the radio.

Don't patronize street vendors selling filters or "static eliminators." (The equipment they use for demonstration is a fake.) Usually, though not always, the only effective static filters are those applied at the source of the static—on the motors, lights or electrical appliances which cause "man-made" static.

Many radios operating erratically—with minor evidence of intermittent reception—will often respond to a hard whack on the cabinet and come back to life temporarily. In many instances a service man is *not* required to effect a permanent repair. All tubes should be wiggled in their sockets, grid caps twisted, shield tops twisted back and forth, and finally shield cans rotated a bit.

This same procedure will, more often than not, cure a radio set of its squeals.

If your radio shows absolutely no signs of life—no light, no sound, no heat—there still may be nothing wrong that a little attention won't correct.

Check the electric plug; see whether the "legs" and the wires leading to the legs are intact and make sure that it's inserted completely and firmly into the socket. If it is, test the socket—see whether a lamp that is plugged into it will light.

You may find that an ac-dc radio operating on d-c will heat up but won't play because the plug is inserted into the socket the wrong way. Just reverse the plug.

If you have an a-c radio and have moved to a d-c location, don't have it converted into a d-c radio. The job is very apt to be unsatisfactory, and if you move again you will probably have to have it done all over (there are relatively few d-c areas in U. S. cities). Either buy an ac-dc midget for temporary use while at the d-c location or else buy a d-c to a-c inverter, costing about \$18 at Lafayette and Allied.

TRY THE TUBES

IF YOU still get no sound from your radio, then you may begin to suspect a burnt-out tube. And the chances are pretty good that the trouble is just that, for defective tubes are responsible for much radio trouble. Again, don't throw up your hands and send for the service man. If he replaces any tubes, he's likely to charge you the full list price, plus a service fee.

You can do the job much more cheaply if you'll remove the tubes yourself and take them to a radio store to be tested. Pick out a store which gives at least a 40% discount on standard brands of tubes. Your best bet will probably be either a local store of a mail order house or a large chain radio supply store. They may sell their own private brands (*Knight, Lafayette, Sears', Ward's*) at even lower prices.

This way you'll not only save money on the tubes, but avoid the possibility of paying the service man for non-existent defects in your radio.

Removing tubes is a comparatively simple operation anyway. But remember one thing: *always pull out the electric plug from the wall socket before touching the tubes—or, in fact, before venturing inside the cabinet of the radio for any reason.* The inner mechanism of some radios is a potent source of shock.

If there is a wire running to the top of some of the tubes in your radio, pull off the cap to which the wire is soldered, using a pencil to pry it up if necessary. Tubes with form-fitting metal shields around them can be removed in entirety, and the shields slipped off afterwards. Shields like round cans must be removed before the tube is taken out. To remove a tube easily, grasp it firmly and use a straight, upward pull combined with a rocking motion.

Notice whether the tube's type number (such as 6SK7 or 6V6G) is printed near the socket. If it isn't, write in the number as you remove the tube, so that you'll have no difficulty in returning the right tube to each socket. If there are duplicates, mark each tube and socket.

When a salesman tests your tubes and tells you that you need a certain number of replacements, you may as well just take his word for it, and buy the tubes. What the tube testing machine shows is neither here nor there, because it can be made to register anything a dishonest salesman wants it to register. *Be sure to keep your old tubes.* A tube that tests "bad" in a tube tester may work in your own particular radio.

When you get home, put your old tubes back in the set, note the radio's performance and then substitute the tubes you've bought one by one. If the new



"REPLACE" OR "GOOD"?

The tube testing machine tells—if the salesman lets it

tube makes the radio work better, use it, and throw its old counterpart away. But where there's no noticeable improvement, leave the old tube in.

Thus you may end up with some extra tubes on your hands, which might come in handy for a future emergency. If you're not interested in that, you can order a complete set of tubes from Sears-Roebuck or Montgomery Ward and within 15 days return any or all tubes that don't improve your radio. This offer is made by both Sears and Ward's in their catalogs.

Finally, remember that whether your tubes were bought or tested within a year or a week, they can go bad at any time. Tubes don't need to be replaced regularly, but only when they stop functioning normally.

With some types of ac-dc radios, you must be careful to replace the pilot light as soon as it burns out, to prevent tubes from burning out, too.

NOW CALL IN THE SERVICE MAN

IF YOU'VE checked all the points mentioned here, from the aerial to the tubes, and nothing seems to help the performance of your radio, then you'll have to enlist the aid of a radio repair man. If your radio is small, take it to his shop and try to get him to fix it while you wait. If you leave it with him so that he can go over it later to estimate the charge, he may not only overestimate, but also put other parts out of order so that they will require fixing. If the radio man will fix your set while you wait, you are much more likely to get a correct charge for the time he spent on it and for the parts which you saw him replace—if any.

If your radio is too large to take to a

shop, you'll have to call a service man to your home and expect to pay him for his time. But warn him in advance that you want the work done in your home. Most service men will claim that it's necessary to take it to the shop, and it may be, if the trouble is intermittent. However, radio troubles that can't be both diagnosed and fixed on the spot are rare indeed.

But if the radio is fixed in your home, in your presence, the repairman isn't so apt to charge for servicing which he never performed. He can expect his \$2 hourly fee, but no more.

Before the radio is fixed—at home or in the shop—let the service man know you will want the old parts, if you are to be billed for replacements. You may thus avoid being charged for fictitious replacements. And you keep the service man from using old parts from your radio in repair jobs that he does for others.

RECORD CHANGERS

WHEN it comes to repairing record changers, the situation is most hopeless of all. There are very few bona fide specialists, and many radio repairmen are not interested in servicing a mechanical mechanism like a record changer. If you are mechanically inclined or have a friend who is, you may be better off inspecting and adjusting it yourself.

Frequently, record changers operate poorly because the mechanism is not properly leveled. Try propping up one side of the radio (usually the right side facing you). In any case when you buy the radio you should write to the manufacturers of both the radio and the record changer for "service notes" on the record changer.

MEDICAL SECTION

HAROLD AARON, M. D., SPECIAL MEDICAL ADVISER

MEDICAL CONSULTANTS: Dr. Anton J. Carlson—Chairman, Dep't of Physiology, University of Chicago; Past President, American Physiological Society; Dr. Theodor Rosebury—Assistant Professor of Bacteriology, College of Physicians & Surgeons, and School of Dental and Oral Surgery, Columbia University; Dr. Marion B. Sulzberger—Ass't Professor of Clinical Dermatology and Syphilology, New York Post-Graduate Medical School, Columbia University; Editor, *Journal of Investigative Dermatology*.

CU's Medical Consultants give technical advice on matters of medicine which lie within their fields. CU is responsible for all opinions concerning social, economic and public health questions.



Infectious Diseases

... still take their toll among millions of Americans each year. But there is no let-up in medical efforts to combat them. CU discusses present methods of control and treatment

STRANGE as it may seem, medical science has not yet rid the world of any single infection known to man. It is true that plagues and pestilences no longer sweep continents and the purging fevers that lurked in the waters we drank have been held in check. Yet millions of Americans still suffer from malaria and the common cold; and the respiratory infections—influenza and pneumonia—attack hundreds of thousands every year. Even such an ancient disease as the plague is still a potential public health problem in some sections of the U. S.

Furthermore, the dislocations and havoc caused by wars, bombings and mass migrations have increased the peril of the infectious diseases.¹ The achievements of chemotherapy with the sulfonamide drugs have provided new resources in combating them, yet very little is known about why one person becomes ill and another goes free, why one germ attacks the lung and another attacks the kidney, how an infection begins and how it ends.

Even the common contagious diseases, which we have long boasted of having conquered, still haunt the cradle and

¹ An extremely interesting account of the general problem of the epidemic diseases will be found in "Plague on Us" by Geddes Smith, Commonwealth Fund, New York City, \$3.

bedside of American homes. But new biological, chemical and immunologic weapons against these diseases are being devised every year. And it is to these new weapons that we turn our attention in this article.

It is estimated that in the U. S. more than eight million cases of the common contagious diseases—diphtheria, scarlet fever, whooping cough, smallpox, mumps, measles, chicken pox and German measles—occur every year. The first six of these are by all odds the most important (chicken pox and German measles are so mild as a rule that there has been little incentive for investigative work with respect to them). Hence the prevention and treatment of these diseases are still a public health problem.

DIPHTHERIA

FIFTY years ago, from 30% to 50% of diphtheria patients died. Today only 5% succumb. The difference is due to the use of antitoxin.

Formerly over 80% of the deaths from diphtheria occurred in the first four years of life. Today fewer cases are found among children and a relatively greater number among adults. The difference is due to the widespread practice in most communities of actively immunizing a large proportion of the children. It is not astonishing, therefore, that in the last five years, even in our

largest city, New York, one-fifth of the cases have been in adults.

Up to six to nine months of age the infant usually is protected against diphtheria by virtue of the immunity transmitted by the mother. After nine months, however, all infants should be actively immunized with "toxoid." After the active immunization, a Schick test² should be performed from time to time to determine how lasting the immunity has been. It is usually taken for granted without doing an actual test that all preschool children who have never been immunized should be.

A mixture of toxin and antitoxin, called toxin-antitoxin, used to be used for immunization against diphtheria. Today "toxoid" is supplanting it as the immunizing agent.

In preparing "toxoid" the irritant and toxic effects of diphtheria toxin are neutralized by aging, heating or treatment with chemicals; the immunizing properties are unaffected. In New York City, the Department of Health recommends that children who have received toxoid immunization in the first one or two years of age should receive a further small injection at the time of entering school at six years of age.

SCARLET FEVER

SCARLET fever has always been dreaded by mothers because of the prolonged invalidism and serious complications associated with it. Today, fortunately, the picture is different. As a result of poorly understood changes in the virulence of the scarlet fever germ ("Streptococcus Hemolyticus") the great majority of cases have been mild, milder even than measles.

Scarlet fever is spread almost always through contact with another case. This case may be so mild as to escape detection, or in such an early stage that the characteristic symptoms haven't yet appeared. Very occasionally, the disease is transmitted by a healthy person who harbors the bacteria in his throat. Where milk is not pasteurized frequent epidemics of scarlet fever are often traceable to it.

Susceptibility to scarlet fever is determined exactly as is susceptibility to diphtheria—by injecting into the skin a small drop of a solution containing a tiny amount of the toxin of the germ (the Dick test). Several hundred times this amount of toxin is used in the form

² In the Schick test a small drop of solution containing diphtheria toxin is injected into the skin. If the patient is susceptible to diphtheria, there appears at the end of 48 hours a brownish discoloration of the skin. Those who are immune show no reaction. The test is safe and harmless.



HORSE SERUM

... for diphtheria and scarlet fever antitoxin is made from the blood of horses immunized against the diseases. Here the blood is being stored; the serum will separate from it, and out of the serum will come the antitoxin



BLACK STAR

CONVALESCENT SERUM

... is taken from the blood of persons who have recently recovered from scarlet fever or measles. Here a nurse is withdrawing blood from the arm of a patient. The serum will be ready for use as soon as it has separated from the blood

of injections to produce active immunity against the disease.

Because many children are naturally immune, because the disease is so mild at the present time, because the reactions following the injection are severe, and because the results are not always satisfactory, active immunization of children with scarlet fever toxin is not generally recommended. Should the disease become as severe as it was years ago, however, active immunization may become necessary.

The U. S. Public Health Service is experimenting with a scarlet fever "toxoid" as a preventive against scarlet fever. If satisfactory, it will supplant the toxin now used.

For the treatment of scarlet fever, two serums are available—convalescent scarlet fever serum obtained from the blood of individuals recently recovered from the disease, and scarlet fever antitoxin obtained from animals who have been immunized with toxin.

Convalescent serum has proved to be very valuable. As with all other serums, the earlier it's given, the more beneficial the results. When administered early and in sufficient quantity it will cause the disease to subside in 12 to 24 hours in most cases.

Convalescent serum has a tremendous advantage over the antitoxin prepared from animals because it can be administered directly into the blood without danger of untoward reactions. Antitoxin is usually injected into the muscles in order to avoid causing severe allergic

reactions. Injection directly into the veins is best because the serum is distributed immediately throughout the body, whereas it takes up to 14 hours for the serum to reach a maximum concentration in the blood after an intramuscular injection.

Despite the present mildness of scarlet fever, many health authorities recommend that every patient get serum in order to prevent the development of the occasional severe attack and to reduce the chances of serious complications. Cases which are seen as late as the fourth or fifth day of the disease, or which have already begun to get well, are not, as a general rule, given the serum.

Children who are accidentally exposed to scarlet fever can obtain temporary immunity from an intramuscular injection of serum. The immunity, however, will last only about two weeks. Studies have shown that only 1% or 2% of exposed children who have received such an injection will develop scarlet fever, whereas 10% to 15% will develop the disease if no protection by serum is given.

Unfortunately, the cost of convalescent serum stands in the way of its more widespread use. In New York City convalescent serum, dispensed at cost of production, costs \$10 for 40 cubic centimeters, the average dose for a child; \$25 for 100 cc, the average dose for an adult. Scarlet fever horse serum is somewhat cheaper—costing from \$5 to \$10 per child's dose.

WHOOPING COUGH

WHOOPING cough (pertussis) is another bacterial disease for which vaccines and serums have been proposed. Because whooping cough kills more babies than diphtheria, scarlet fever and measles combined, it is important to know the value and limitations of these materials.

Much work on whooping cough vaccines has been done in the past few years but no general public health policy with respect to their use has been established. Nevertheless, many practicing physicians do recommend them. The so-called "Sauer Pertussis Vaccine" is considered the most valuable of the whooping cough vaccines on the market. Because whooping cough is most dangerous in infancy and because no immunity is transmitted by the mother, the vaccine is given at about five to six months of age with a small "refresher" injection every year through early childhood.

Just two months ago, a report from the U. S. Public Health Service appeared showing encouraging results with a new type of whooping cough vaccine—an alum-precipitated vaccine prepared like the diphtheria toxoid. But more work with this vaccine will be necessary before its value as a preventive can be appraised.

The use of vaccines for the treatment of early cases of whooping cough is not approved by most doctors. Besides being painful and expensive, the curative effects are very dubious.

Doctors have experimented with serum from patients recovering from whooping cough, but the results have not been encouraging. So-called "hyper-immunized" serum, prepared at the University of Pennsylvania, has had some favorable reports. However, the difficulty of obtaining such serum and its cost make it impracticable for ordinary use.

The most effective method of preventing the disease in new born infants and those under nine months of age, when the complications are most serious, is strict isolation from any member of the family or visitor having a cough or respiratory disorder.

SMALLPOX

THE THREE contagious diseases discussed above are caused by specific bacteria. The remaining three—smallpox, mumps and measles—are all caused by infection with specific viruses.³ For only

one of these—smallpox—is there available a successful preventive. By inoculation with "vaccine virus," active immunization is achieved.

The essential point in vaccination is that a person submits to having a mild form of smallpox confined to a small area of the skin, thereby developing protective "antibodies" against the more threatening type of smallpox.

The question of the need and indications for vaccination has been well summarized by Dr. Philip Stimson of Cornell University Medical School:⁴

A community which is 100 per cent vaccinated will have no smallpox except that which is introduced from without. It is obviously the duty of every individual, not only to himself but to the community in which he lives, to keep himself immunized against a disease which can, in severe epidemics, kill one-half the people afflicted.

In the presence of an epidemic, everybody must be vaccinated, regardless of the time when the last previous vaccination was done, unless the scab of a recent vaccination is still present. . . .

Vaccination in early infancy, with revaccination on entering a school, and again around the time of puberty, as well as whenever exposed or likely to be exposed [as during trips to foreign countries such as Mexico and South America], will give reasonable certainty of protection through life. In such a series of vaccinations, probably the first one only will give a full reaction.

Because vaccination can cause a severe skin eruption in a child who already has a skin disorder, it is considered advisable to postpone vaccinating children until the disorder has been cured. Furthermore, such children are usually isolated from others who have just been vaccinated since mere exposure can also cause a flare-up of the skin disorder.

MUMPS

ACCORDING to public health authorities, mumps is of greater public health and military importance than is generally believed. In the first World War, one out of every 20 white men and one out of every 6 Negroes in the army had an attack of mumps. Dr. Thomas Parran, U. S. Surgeon General, has said that mumps is one of the most disabling of the acute infections among recruits.

The use of convalescent serum for protecting exposed persons has been tried recently and reported to have favorable results. The scarcity and cost of such serum, however, will probably prevent it from having wide use in practice. Con-

³ A virus is a parasite so small as to be invisible under the microscope and capable of development only within a living cell. Other virus diseases are influenza, common cold and yellow fever.

⁴ *Manual of Contagious Diseases*—3rd Edition, 1940, P. 282, Lea & Febiger, Phila.

Formula vs. Dandruff

PERHAPS the most useful single measure for promoting a healthy scalp and for removing a normal quota of dandruff is to shampoo once weekly with a plain soap, oil or tar shampoo (see "Dandruff and Baldness", September 1941 Reports). The following formula has been suggested by Drs. Sulzberger and Baer, authors of last month's article, as a cleansing agent and lotion for combating dandruff to be used as a supplement to your regular shampoo (it can be prepared by druggists):

Chloral Hydrate.....	4.0
Salicylic Acid.....	4.0
Glycerin	6.0
Alcohol { enough of each to make 240.0	
Water {	

A few people may find this lotion irritating because of sensitivity to one or more of the ingredients. If so, it may be diluted with olive oil or water.

trary to popular belief, sterility resulting from mumps is very rare.

MEASLES

ALTHOUGH no vaccine against measles is now available, some promising work in the production of a virus vaccine is now being done in a few research institutions. Until the work is completed, immunity against measles can be accomplished to a certain extent by the use of convalescent blood or serum.

Many physicians consider that the simplest and cheapest method of "modifying" measles so as to shorten the course of the disease, prevent complications and confer immunity, is to inject into the child the blood of anyone (preferably a parent) who has had measles at any previous time. Convalescent serum is usually reserved for children who are exposed to measles during the course of another illness when the prevention or modification of the measles must be more certain than that provided by other serum or by whole blood. Other materials that have also proven effective are the "globulin" fraction of normal serum, and so-called "placental globulin fractions."

Dr. Wm. Thalheimer of the Manhattan Convalescent Serum Laboratory, who has had extensive experience with convalescent serums of both scarlet fever and measles, reports that measles modified by convalescent serum has the important characteristic of conferring an active immunity which persists for years and perhaps for life. However, the child whose attack has been completely prevented is still susceptible to another attack. Once the eruption of measles has appeared, no serum, blood or "globulin fraction" will prove of any value.

Infantile Paralysis

Infantile paralysis or poliomyelitis is—like measles, smallpox and mumps—a virus disease. But of how the virus enters the body or how to prevent it from entering, nothing is known. It is now believed that the disease is transmitted by a number of channels, such as direct contact with an infected person or with infected food or water.

With the anxiety prevailing in some regions in the U. S. because of prevalence of the disease, it would be gratifying to point to new methods of prevention or control. Unfortunately, there is nothing new to recommend. Good personal hygiene, avoidance of excessive fatigue and exposure to any illness are useful. In an epidemic all milk should be pasteurized and drinking water boiled.

As for treatment, Dr. Stimson says:

. . . complete rest is almost the whole story. In the presence of an epidemic, any child with only a minor illness such as a slight cold or an alimentary disturbance, should be considered a presumptive abortive or pre-paralytic case and be given prolonged bed rest with a very minimum of handling. In more definite cases, parents should be made to understand that absolute rest is so vital that even a transfer to a hospital might be harmful, except of course where the use of a respirator is indicated. . . .

When a diagnosis is definite and muscle weakness has appeared, then the patient should be put in a neutral position with no muscles stretched or under tension, and should be protected from all unnecessary handling or other disturbance. . . .

Convalescent or other serum is not considered to be of any value by the N. Y. City Dep't of Health. The State of Illinois, however, believes that it is of some value and supplies a convalescent serum to physicians of that State.

GENERAL SECTION

CONSUMER NEWS AND INFORMATION



What to Do With Your Savings

Rising living costs put a sharp strain on savings.

An authority here gives small investors some sound advice. His first rule: protect your principal

by BERNARD J. REIS

Certified Public Accountant, Treasurer of Consumers Union and Executive Director of American Investors Union

“WE HAVE been talking about inflation for a long time as if it were a threat remote from our daily lives. It is a distant threat no longer. We are facing it now, and we must deal with it at once.” With these words Secretary of the Treasury Henry Morgenthau again last month warned the American people that the country is on the brink of, if not already knee-deep in, inflation.

For the consumer of average means, inflation is a double source of danger. Sharp price rises reduce his living standards. At the same time the inflationary process can wipe out a great part of the value of his savings.

Consumers Union, in its weekly *Bread & Butter* and the monthly *Reports*, is continually tackling the problem of threatened living standards. This article is intended to help you protect your savings.

What is taking place today is a sharp price inflation of the kind that occurred in the first World War when the value of the dollar was halved. The dollars which you'll receive as interest on your savings will buy less goods and services. And the higher cost of living will make it increasingly difficult for you to save at all.

But it seems certain that there won't be a printing press inflation (such as Germany had during the last war) wherein the value of currency sank to zero and the small investor's savings vanished into the air. However steep price inflation may become, there is no

evidence to indicate that the United States will have to resort to printing money to supply needed credit; and every reason to believe that the government will come out of the war with its credit standing unimpaired.

And so, though the small investor may suffer a loss in his savings, they won't become worthless. If he protects his principal, his savings can be an invaluable aid in helping him through the almost inevitable post-war breakdown.

This should be the primary concern of the small investor during the present crisis: to protect the bulk of his principal. In addition, he should keep his savings where he can get at them quickly if he needs them.

For these reasons, American Investors Union, a non-profit organization for the protection of the investing and saving public, has been advising that small investors shouldn't load themselves up with common stocks and real estate. Some individuals today are advising them as supposed hedges against inflation. But all during the 1930's there was much loose talk about inflation making the dollar worthless, and the catastrophe never arrived. The people who purchased stocks to avert a New Deal inflation left most of their savings in the 1937 crash.

American Investors Union feels that if people with savings in the \$1,000-\$10,000 bracket buy common stocks today to guard against a “runaway” inflation, they'll stand to lose a large part of their capital in the post-war period of adjustment.

So far as the value of investments in stocks is concerned, savers should note that in the past two years of war, though stock prices have fluctuated, they are

still pretty close to the lowest level of 1940. And while business volume today is 33% above its 1937 high, stocks are about 45% below their 1937 peak.

One reason for this stagnation of the stock market may be that large investors realize there won't be a run-away inflation. So the lords of finance aren't rushing in to buy large blocks of common stocks.

If you have, for example, \$2,000 in a savings account earning 2% interest, or \$40 a year, it won't be a wise move to try to increase your income slightly by transferring your investment. The same \$2,000 invested in stocks might bring you perhaps \$100 or \$150 a year, a difference of \$60 to \$90. But this additional amount won't in itself be enough to make up for the higher cost of living that inflation has caused. And when the war ends, you'll risk having a large part of your capital wiped out.

It would be much better to protect the bulk of your principal, even if it becomes necessary to take a few hundred dollars out of your savings account to meet the higher cost of living. Remember: *nothing will substitute for available cash when the post-war storms usher in a new depression.*

For the average person, it's better to have cash dollars, even if their purchasing power is reduced, than common stocks which may or may not have much value. The few extra dollars in interest or dividends coming from investments in stocks aren't worth the other dangers involved.

BEARING in mind that the major objective for the small investor or saver is the protection of his principal, let us examine what concrete steps can be taken at the present time. You should apply three tests to your savings program. First, and most important, is the medium safe? Second, will you be able to get hold of your money quickly if an emergency arises? Third, are you receiving a reasonable return considering the safety of your investment?

Small investors and savers can be sure that these rules are financially sound, for the biggest banks, investment funds and individual investors follow them. Thus, according to the Federal Deposit Insurance Corp., the insured commercial banks of the country on December 31, 1940 had about 37% of their assets in cash and about 27% more in U. S. government obligations. The banking firm of J. P. Morgan & Co., in addition to large cash reserves, has almost two-thirds of its resources invested in U. S. government obligations. And the \$150,000,000 fund of the Carnegie Foundation holds over 60% of its money in U. S. government bonds.

Cumulative Index

Each issue of the Reports contains this cumulative index of principal material carried since publication of the 1941 Buying Guide issue. By supplementing the Buying Guide index with this one, members can instantly locate current material and keep abreast of changes resulting from new tests. Page numbers run consecutively beginning with the January 1941 issue. Jan., 1-28; Feb., 29-56; Mar., 57-84; Apr., 85-112; May, 113-140; June, 141-168; July, 169-196; Aug., 197-224; Sept., 225-252; Oct., 253-280.

Reports started replace material in the 1941 Buying Guide.

Air condition- ing, home...127	Ice cream mixes234
Applesauce .. 46	Infectious diseases272
Aspirin 12	Iodine & goiter129
Autos, 1941*.. 33	Iron & anemia.101
—1941-42	Knives, kitchen 179
survey ...157	—sharpeners 181
Baldness243	Laxatives189
Batteries, flashlight* 71	Meat grading. 78
radio185	Milk, raw & pasteurized.131
Beans, kidney..242	Minerals [diet] ..49, 76
Blankets	Mushroom soup 94
—cotton ...117	Oilcloth, table.160
—part wool. 5	Perfumes122
Bleaches, household .. 22	Permanent waves148
Carbon paper. 90	Pumpkin 98
Catsup* 46	Radios, auto* .119
Cherries241	—buying .. 18
Cigarettes* ..229	—portable*.183
Clam chowder. 94	—repairs ...270
Cleansing	Refrigerators, 1941*145
—powders*..239	Shaving creams236
—tissues* .. 74	Sheets* 9
Coal, bitumin- ous242	Shirts, men's* 96
Colds	Shortenings ..208
—& gelatin. 24	Shorts, men's* 203
—& vitamins 48	Ski equipment* 13
Curtains 65	Slips*152
Dandruff243	Soap, Swan & Ivory 70
Depilatories* .263	Socks, men's*.173
Developers* .. 61	Soilless culture 266
Diapers268	Stocking savers232
Egg beaters* . 69	Teeth, how to brush 23
Fishing	Textile finishes187
equipment .154	Tobacco, pipe 206
Flour, fortified 75	Toilet tissues* .72
Fluorescent lighting ... 15	Toilet water ..122
Ford Six175	Towels, bath* . 7
Frozen foods, Co-op test ..219	Typewriters, portable ...201
Furniture	—ribbons .. 92
—finishing . 47	Undershirts, men's203
—polishing & care... 99	Vacuum cleaners257
—porch & garden ..150	Vanilla extracts 67
Gelatin	Vitamin C, fruit juices ...44, 64
—Knox .24, 190	Vitamins
—plain & prepared.125	—& colds .. 48
Grapefruit ... 98	—& diet ...215
Hat's, men's ..261	—& flour... 75
Heating	
—coal stokers & oil burn- ers*212	
—fuels*210	
—plants ...176	

If the biggest banks and investment funds believe that it is necessary to have large amounts of cash on hand and, moreover, consider government securities to be the safest and most liquid investment at the present time, then certainly the small investor should not take risks which they are afraid to take. You should try to have available in a safe medium as large a supply of cash as you consider necessary to meet any personal emergency. You can then place the remainder of your capital where it will bring a fair return and can be converted into cash when you need it. Here are some suggestions on how to get the maximum protection for your savings while enjoying a fair rate of return, but holding onto the opportunity to obtain cash when needed.

1. No method of keeping a cash reserve on hand is safer and more liquid than the Postal Savings System. You can deposit up to \$2,500 and receive 2% interest a year—a higher rate than most banks pay. You can get your money back at any time; remember that Postal Savings were unaffected by the national bank holiday of 1933.

2. If you need to have more than \$2,500 available for quick withdrawal, you can put more of your savings in a mutual savings bank or the savings department of a commercial bank which is covered by the Federal Deposit Insurance Corp. But make sure that the mutual savings bank you choose is covered by Federal insurance; only 53 of the 551 mutual savings banks in the country give you this protection.

Since the FDIC insures deposits only up to \$5,000, you should, if your savings exceed this amount, distribute them in several insured banks. Then you'll get the maximum \$5,000 insurance in each institution.

3. After you have a cash reserve sufficient for your needs established in Postal or bank savings accounts, you may still have funds available which you want to invest at a fair return. One of the best investments you can make is U. S. Defense Savings Bonds, Series E. Any individual can buy up to \$3,750 of bonds (purchase value) each year. A bond costing \$18.75 matures in 10 years, paying \$25 at that time. This amounts to 2.9% interest, compounded semi-annually, or a gain of 33% over the original purchase price.

These Defense Bonds can be cashed in after 60 days following their issue at specified redemption values, which are as great as or greater than the amount paid for them. If you hold these

bonds for less than two years, the interest return is only about 1%. Above this length of time up to six years, the interest rate increases gradually. Only if you hold the bonds more than six years do you get more than a 2% return.

One of the best features of the Defense Bonds is that you can convert them into cash at any time without losing any of the principal. Consequently, they are better investments for small savers than the Liberty Bonds of the first World War, which were not redeemable by the government at fixed cash values before maturity. Liberty bonds could, and did, fluctuate in the market and many people had to sell them during depression periods at losses.

4. Don't put your savings in Federal Savings & Loan Associations. Despite the implications of their advertis-

Read Before You Buy

BECAUSE stock investment is so complicated a matter, the American Investors Union has studied the practices of experts in this field, and has published its findings (see list of articles below). Small investors would do well to read this material before they embark on a stock-buying program.

We emphasize that you keep in mind that the major objective of your savings should be the protection of your principal. The man who holds on to his savings, instead of seeking a speculative return—which for most persons won't be enough to live on, anyhow—will fare best in the unpredictable conditions of post-war depression.

a) "What A War Economy Means To You" (Your Investments, September 1941)

b) "Federal Savings & Loan Associations: Their Dangers to Savers" (Your Investments, March 1941)

c) "How to Shop for a Bank" (Your Investments, October 1941)

d) "Installment Investment Plans: A Sinkhole for Savers" (Your Investments, June 1941)

e) "215 Stocks Which Paid Dividends for 10 or More Consecutive Years" (Your Investments, September 1940)

f) "The Investment Policies of the Carnegie Corporation from 1929 to 1940" (Your Investments, July 1941)

g) "The New U. S. Savings Bonds" (Your Investments, May 1941)

h) "A Prudent Investor's Portfolio" (Your Investments, October 1941)

Copies of these issues of Your Investments, publication of the American Investors Union, may be ordered through Consumers Union at the following prices: one issue, 50¢; three issues, \$1; all eight issues, \$2.50.

ing, you aren't opening a savings account with these institutions when you give them your money. Instead, you're purchasing building and loan stock. An investigation made by the American Investors Union has shown that these associations are not good risks because they have about 90% of their assets tied up in real estate. And no one knows what will happen to the real estate market in the post-war period.

The percentages of reserves of these associations are very small compared to the safety standards recommended for insured banks by the Federal Deposit Insurance Corp. And the insurance coverage provided for these associations

by the Federal Savings & Loan Insurance Corp. has jokers in it, so that an investor might have to wait for years to get his money back.

5. If you want to put a certain proportion of your money into stocks, make sure that you choose relatively safe, easily marketable varieties. It's safest to buy good common stocks with long histories of high earnings, diversifying your holdings as much as possible. Don't buy preferred stocks because their yields today are not sufficiently high to withstand a sharp fall in value. And remember that *no* stock is as safe as a savings account or government bond.

The Docket

Notes on government actions against misleading advertising, false claims, dangerous products

The Federal Trade Commission has taken action against:

Elizabeth Arden Sales Corp. The company has agreed to discontinue a number of misrepresentations made in connection with the sale of its cosmetics.

The company will no longer claim that its *Joie de Vivre* will give or help to give a firm texture to the skin or change the contour of the face, or that *Ardena Skin Lotion* has a tonic effect on skin.

Nor will the company use brand names containing the words "anti-brown spot" or "circulation" to imply that a preparation will remove brown spots, freckles or discolorations, stimulate sluggish skin, or do away with sallowness.

Pond's Extract Co. and Jergens-Woodbury Sales Corp. The Commission charged the companies with making misleading statements regarding the vitamin content of their products.

Pond's, for example, has advertised that its creams contain both vitamin D and A, the latter being described as a special, nourishing "skin vitamin." Woodbury has stated that the vitamin D in its creams and soap will help users fulfill "their fondest hopes for beauty," and that this vitamin will keep the skin healthy and alive.

The Commission's answer to these claims: even if the vitamins should be absorbed into the skin, they wouldn't have any particular effect on it.

Consequently, both companies have been ordered to stop advertising that the vitamins in their products have any special benefits for the skin. Moreover, Pond's has been ordered to cease claiming that its creams will cleanse and re-

move impurities from the "underskin." And Woodbury is not to advertise that its creams and face powders remain "germ free" before and during use. Tests showed that organisms added to the products remained active in the creams up to seven hours, and were still active in the powder after 24 hours.

Fanny Farmer Candy Shops, Inc. The words "Old Time—Home Made" will no longer appear on boxes of Fanny Farmer candy. The company has agreed to stop using terms which imply that its products, which actually are factory made, are prepared in a home or are "home-made" in any way.

Northam Warren Corp. and its subsidiary, **Peggy Sage, Inc.**, makers of *Cutex* and *Peggy Sage* nail polishes. The companies have agreed to stop misrepresentations of the nature of fingernails in advertisements for their nail polishes; namely, that fingernails have pores or are like skin in structure; that their health, growth or length depends upon contact with air or moisture.

The company also agrees to stop claiming that their polishes form a porous or meshlike film or coating over the nails and are permeable by appreciable quantities of moisture; or that the moisture permeability of their polishes exceeds that of competitive products by 206%, 100% or "any other percentage not in accord with the facts."

The company must also not claim, directly or inferentially, that the use of competitive brands of nail polish smothers or "seals up" the nails, or results in brittle, splitting or flaky nails or any other unhealthy nail conditions.

CU Has Speakers In Most Cities

PRICES are rising, quality is changing. The members of your women's club, P.T.A., lodge or trade union would like to know what they can do about it.

CU has organized a corps of consumer leaders who can help them arrive at an answer.

CU has close to 100 speakers, one in almost every state, in most big cities and in many small ones. We will gladly put you in touch with the CU speaker nearest you.

Write today for further information. Tell us the nature and size of your audience.

CONSUMERS UNION

17 Union Square W., N. Y. C.

I am enclosing \$..... for which please send me the material I have checked below:

- ☐ "Your Marriage"—\$2.
- ☐ "Look Before You Cook"—\$1.50.
- ☐ Special Combination Offer—
"Look Before You Cook" (\$1.50)
"Good Health & Bad Medicine" (\$1.50)
"Our Common Ailment" (\$1.00)
"Wines & Liquors" (50¢)
—Price to CU Members for all four—\$3.
- ☐ "How to Buy Furs"—50c.
- ☐ Bound Volumes, 1936-37, 1938, 1939—each \$2. 1940—\$2.50. (Check year.)
- ☐ Complete Set of Volumes Ordered Together—\$7.
- ☐ Any Three Volumes Ordered Together—\$5.
- ☐ Leather Binders for the Reports—75¢ each.

NAME.....

ADDRESS.....

10SP1

CONSUMERS UNION

17 Union Square W., N. Y. C.

I enclose \$ for which please enter Gift Memberships for the following (check whether ☐ with or ☐ without Bread & Butter; see back cover for Christmas Season rates):

NAME
ADDRESS

NAME
ADDRESS

NAME
ADDRESS

NAME
ADDRESS

☐ Check here if one of the memberships entered above is your own renewal.



I enclose \$ for which please send Bread & Butter for one year to the following (see back cover for Christmas Season rates):

NAME
ADDRESS

NAME
ADDRESS

NAME
ADDRESS

NAME
ADDRESS

NAME
ADDRESS

NAME
ADDRESS



(Unless instructed to the contrary, all Gift Memberships will start with the new 1942 Buying Guide issue, appearing early in December; and Bread & Butter Gift Subscriptions will start with the December 25th issue. A Gift Card in your name will be sent in all cases.)

MY NAME
MY ADDRESS

10CU1

Bristol-Myers Co., makers of *Minit-Rub*. The company has agreed to stop making a variety of misrepresentations in the sale of this cream, which is supposed to be used as a counter-irritant and analgesic for certain aches and pains. Some of the claims which the company says it will no longer make: that *Minit-Rub* affords relief from chest colds other than relief from the symptoms associated with such colds; that it contains pain-soothing ingredients that act at once in affording relief; that it overcomes insomnia or is efficacious for this condition except where the condition is due to excited nerves; that it relieves muscular aches, pains, or discomforts of every kind; or that it affords effective relief from sprains.

The Food & Drug Administration has seized:

White flour (186 carloads). This seizure, valued at about \$325,000, was the largest in the history of the FDA. The seizures were made in the ware-

houses of the Gordon Baking Co. in Chicago and Detroit, after inspectors had found the flour heavily contaminated with worms and beetles. According to the FDA, the product was adulterated "in that it consisted in whole, or in part, of filthy substance, and that it has been held under unsanitary conditions, whereby it has been contaminated with filth."

The flour had been shipped to the Gordon Baking Co. from seven mills, but the FDA declared that the contamination probably took place after shipment.

The flour is being re-sorted under FDA supervision. Since not all the flour was contaminated, the company will be allowed to keep and use the uninfected portions, but the rest will probably be disposed of as animal feed.

Observed a trade journal: "There is nothing new in the FDA seizure of insect-infected flour. Millers and bakers have been plagued by weevils for years and have found that only the most rigid controls will keep them down."

Labor: Men's Hats, Vacuums

MEN'S HATS

If you want to be sure of getting a union-made hat, look for the union label. For most of the hats made under agreement with the United Hatters, Cap and Millinery Workers' International Union (AFL) carry a union label under the sweatband. CU found one exception: *Stetson* hats, though made under union contract, had no label.

Sears-Roebuck, Montgomery Ward, Adam Hat Stores and Young's Hat Stores do not make their own hats (but only distribute those of other manufacturers). Some of the hats sold under their brand names are union-made, some are not. CU found that two of the three *Adam* models (A112 and 338) and two of the five *Sears'* models (—6465 and —6460) had union labels. None of the *Ward's* or *Young's* did. Neither did the *Dobbs*, *Knox* or *Dunlap*, made by the Hat Corp. of America.

All *Mallory* hats carried labels; all are made under contract with the United Hatters. The union reports that the minimum weekly wage for productive workers is \$20; for auxiliary workers, \$16. The average weekly wage for productive workers is \$32. Weekly wages for productive workers at the John B. Stetson Co., the union states, range from \$24 to \$45; from \$16 for auxiliary workers.

The Hat Corp. of America reports that their minimum weekly wage is \$16; their average weekly wage, \$30. According to information received from the company, union, and National Labor Relations

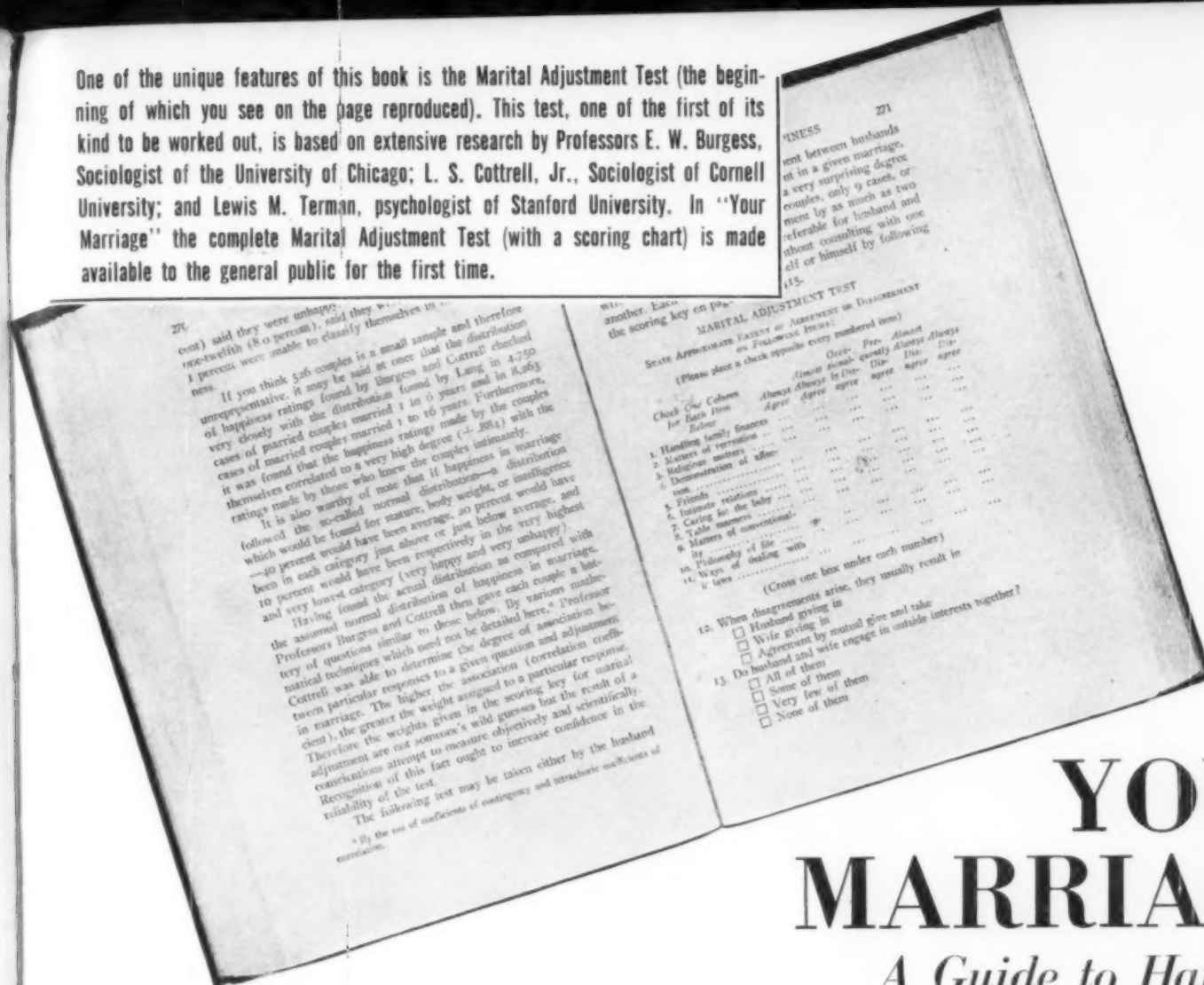
Board, the United Hatters has been certified as the bargaining agent for employees in some of the Hat Corporation's departments. Contract negotiations are now going on as the outcome of an NLRB election held in August. In July, the Trial Examiner of the NLRB had found that the company had discouraged membership in the United Hatters, discriminated against employees for union activity, and dominated employee organizations set up in the plants. Subsequently, the company agreed to reinstate, with back pay, five employees who had been discharged for union activity and to withdraw recognition from the employee organizations.

VACUUM CLEANERS

Only four of the vacuum cleaners rated by CU in this issue are made by companies dealing with unions. One of these is *Montgomery Ward*, made by the Apex Electrical Mfg Co., which has a contract with the International Ass'n of Machinists (AFL). Another is *Hoover*. The company informs CU that it deals with an unaffiliated union, the Hoover Independent Organization, which has been certified by the NLRB as bargaining agent for Hoover employees. Both General Electric and Westinghouse operate under national agreements with the United Electrical, Radio & Machine Workers of America (CIO).

A report on labor conditions under which other cleaners are made will appear in the November *Reports*, along with the remainder of the ratings.

One of the unique features of this book is the Marital Adjustment Test (the beginning of which you see on the page reproduced). This test, one of the first of its kind to be worked out, is based on extensive research by Professors E. W. Burgess, Sociologist of the University of Chicago; L. S. Cottrell, Jr., Sociologist of Cornell University; and Lewis M. Terman, psychologist of Stanford University. In "Your Marriage" the complete Marital Adjustment Test (with a scoring chart) is made available to the general public for the first time.



YOUR MARRIAGE

A Guide to Happiness

by Dr. Norman E. Himes, *Professor of Sociology, Colgate University*

"We consider *Your Marriage* the best book of its kind ever published."—
HENRY M. GRANT, *Executive Director, Family Relations Center, San Francisco*

This book of practical advice for married people, or those contemplating marriage, is authoritative and completely up-to-date. In addition to the sexual side of marriage, Dr. Himes covers thoroughly those psychological, economic and social aspects so often disregarded in other books on the subject. To indicate the wide scope of Dr. Himes' material, we reprint below a condensed version of the Table of Contents.

PARTIAL TABLE OF CONTENTS

SO YOU'RE THINKING OF MARRIAGE!

Sex Problems of Modern Youth
Overcoming Difficulties in Finding a Mate
Choosing a Mate Wisely
How to Predict Your Chances of Happiness in Marriage
Engagement: Personality Testing
Engagement: Its Planning Opportunities

The Case for Early Marriage
The Premarital Examination
The Wedding and Honeymoon

NOW THAT YOU'RE MARRIED

Shall We Buy, Build or Rent a Home?
Should Wives Work?
Hints to Make the Budget Balance
The Wise Use of Credit

Getting Your Money's Worth
Why Be Fooled on Life Insurance?
The Art of Getting Along Together
Sex Life in Marriage
Birth Control
Sterility
Shall We Adopt a Child?
List of Functioning Marriage and Family Counselling Centers in the United States

Illustrated with 18 Charts and Tables • Bookstore edition published by Farrar & Rinehart

\$3.75 AT BOOKSTORES - \$2 TO CU MEMBERS - USE ORDER FORM ON PAGE 277

WEEKLY!



MONTHLY!



YEARLY!



Now more than ever you need CU

... AND SO DO YOUR FRIENDS!

WHY? Because price rises that took place during the month of August alone will cost consumers at least a billion dollars in the next 12 months.

Because new increases that have already taken place at wholesale—and are due to hit retail stores soon—will add several billions more to the bill.

Because declining quality is making many of these price rises add up to two or three times what they seem to be.

Because shortages and substitutions are actually changing the character of the whole marketplace and of the individual products in it.

What all of this adds up to is that it was never more important for consumers to get the most out of their money—and never harder to do it.

That is why you—and your friends, too—need CU.

For as the nation has geared itself to a war economy, CU has geared itself to the needs of consumers under such an economy.

Weekly, through BREAD & BUTTER, CU is now bringing to consumers an “inside,” up-to-the-minute blueprint of what’s happening to the things they buy . . . what forces are at work affecting their interests . . . how to buy wisely in today’s bewildering market.

Monthly, through the REPORTS, CU is giving more efficiently than ever the unbiased, to-the-point buying guidance which has made CU the largest technical organization of consumers in America.

And early in December CU will bring forth the new 1942 edition of the famed Annual BUYING GUIDE issue of the REPORTS—a 384-page shopping companion which puts CU’s whole technical staff and more than 200 consultants right at your side when you step up to a store counter.

Weekly, monthly, yearly—CU is doing a job for consumers that not even the U. S. Government is doing: *telling them in terms of the products they buy facts they need to know to get their money’s worth.*

Maybe this is saying nothing new to you who are CU members.

But this is a busy time of year for most of us, and we find ourselves neglecting important things. May we remind you of three very important things?

1) If your membership is about to expire, you can renew it now at CU’s reduced Christmas Season Rates. Don’t overlook your renewal; in these times you can’t afford to miss a single issue of CU’s money-saving publications.

2) If your membership does not already include BREAD & BUTTER, you are overlooking one of the most useful weapons available for the fight against high living costs. And you can get or give this rapid-fire news weekly—52 issues of it—for less than 1¢ an issue as part of a CU membership, less than 2¢ an issue by itself.

3) The more friends you introduce to CU the better CU can do its job. And now is the time to do the introducing. The reduced Christmas Season Rates make it easy on you; and the needs of the times make CU a perfect gift.

CU’S CHRISTMAS SEASON RATES

REPORTS AND BUYING GUIDE PLUS BREAD & BUTTER		REPORTS AND BUYING GUIDE WITHOUT BREAD & BUTTER
\$4.00	Single 1-Year Memberships	\$3.50
\$7.00	Two 1-Year Memberships	\$6.00
\$3.00	Additional Memberships	\$2.50

If you wish to give Bread & Butter alone, you will be interested in these special rates applying during the Christmas season only:

Single 1-Year Subscriptions (52 issues)	\$1.00
Each additional Subscription—Up to 5	75¢
Each additional Subscription—Over 5	50¢

(Six subscriptions, for example, would cost \$4.50—\$1 for the first, 75¢ each for the next four, and 50¢ for the sixth one.)



All memberships or subscriptions must be entered at one time for the special rates to apply.

Your own renewal may be entered at the reduced rates when entered along with one or more gift memberships.

USE ORDER FORM ON PAGE 278